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Railway Age

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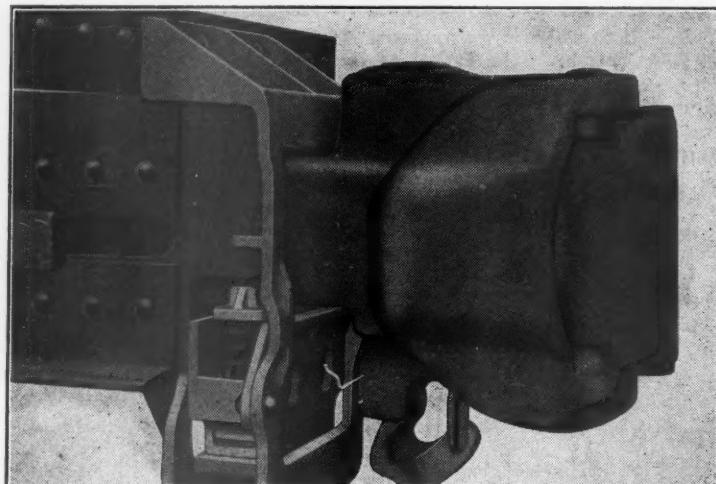
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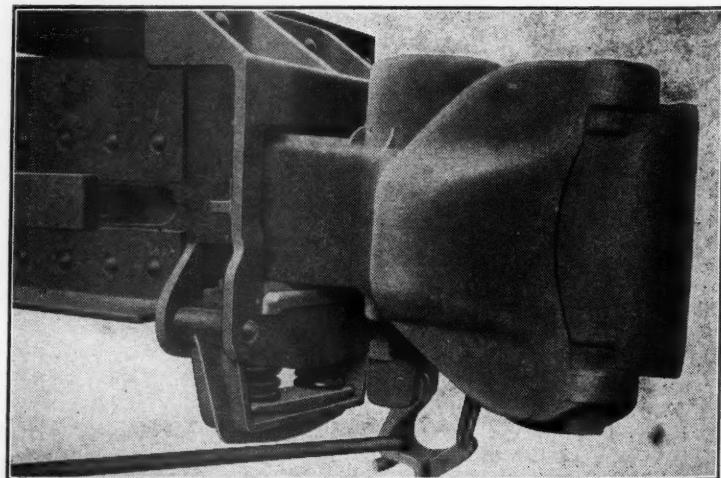
CUSHION COUPLER CARRIER AND POSITIONING DEVICE

MAINTAINS STANDARD COUPLER HEIGHT WHEN CARS ARE UNCOUPLED AND PERMITS A VERTICAL VARIATION WHEN CARS ARE COUPLED TO TAKE CARE OF UNEVEN TRACK OR LOW JOINTS, THUS CUSHIONING VERTICAL BLOWS ON COUPLER, CARRY IRON AND STRIKER.



SWIVEL BUTT
APPLICATION

STRAIGHT SHANK
APPLICATION



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RAILWAY AGE

Government Breakdown Promotes Strikes

Recent developments should have enlightened the American people regarding what is involved in labor disputes and the way in which they should be handled and not handled. The great strikes now occurring and threatened might have been avoided if our federal, state and local governments had steadfastly insisted during and since the war upon labor disputes being processed as prescribed by law.

While the government has been trying to destroy alleged or real monopolies in business, it has been for years allowing and promoting the development of labor unions into monopolies. Leaders of labor unions strive to get the highest wages and most "favorable" working conditions possible for their members. They have to do so, or risk being supplanted in their positions of leadership by men who will demand and fight for more. Leaders of business have to reject and resist demands that they regard as excessive because they have to consider the rates they can charge for service, the prices they can charge for goods, and the profits that can be derived from the rates and prices charged.

Profits can be as effectually destroyed by rates for transportation and prices for goods that drive business away as by rates and prices that are too low in proportion to the labor costs of providing transportation and goods.

Never did experience more conclusively demonstrate than it has in this country within recent weeks that in time of peace government should not interfere in labor disputes, excepting to promote collective bargaining and maintain order.

It is the most fundamental and important function and duty of government to protect all persons and property from disorder and violence. But government has sunk so low in this country that it seldom compels picketing during strikes to be conducted without violence or the constant menace of it. Consequently, labor unions now rely less upon mere cessation of work than upon unlawful use of force to gain their objectives.

Existing laws (the National Labor Relations Act and the Railway Labor Act) assume that labor disputes should and will be settled by collective bargaining—supplemented under the Railway Labor Act by mediation by the (government) National Mediation Board, and by arbitration or the recommendations of "fact-finding" boards appointed by the President.

The process of collective bargaining, mediation and fact-finding established by the Railway Labor Act usually resulted in peaceful settlements until 1941. The labor unions rejected the recommendations of "fact-finding" boards in 1941 and in 1943. In both instances President Roosevelt intervened, with the result that the unions got larger advances of wages than the boards appointed by the President had recommended.

Collective bargaining is the only means required by the National Labor Relations Act for settling labor disputes in the industries to which it applies. President Truman's efforts to get disputes settled in these industries by the appointment of "fact-finding" boards for which the National Labor Relations Act does not provide, and the great strikes that nevertheless have occurred, might be construed to show that collective bargaining has become a failure in other industries as well as in the railroad industry.

But the present labor situation is due less to breakdown of collective bargaining than to breakdown of government, for government, after

having by legislation prescribed collective bargaining as the means of settling labor disputes, has followed other policies certain to prevent collective bargaining from working. How can collective bargaining be expected to be successful as long as Presidents of the United States intervene to aid labor unions to get more favorable terms than they can get by collective bargaining, and so long as strikers are allowed by the federal, state and local governments to violate wholesale the most fundamental laws of society prohibiting the use of intimidation and violence?

Having long observed labor disputes on the railways at close range, *Railway Age* believes that most such disputes could be settled by collective bargaining if it were known they would have to be settled by bargaining or by peaceful strikes. But experience makes it certain that few important labor disputes will be settled by collective bargaining as long as either party to a dispute has reason to believe it can rely on government, first, to back it in bargaining and, second, to allow it to try to get more by the unlawful use of force than it can get by bargaining.

The principal requisite of peaceful settlement of labor disputes under existing laws is strict observance and enforcement of those laws by the federal, state and local government officials who have solemnly sworn, on taking office, that they will observe and enforce the laws.

Prices That Lie

A significant pamphlet entitled "The Crisis of the Free Market" has recently been issued by the National Industrial Conference Board, in which appears the following timely reminder:

"Prices guide the entire economic machine. They guide production and they guide consumption of every commodity and every service. They guide the necessary agreement between production and consumption in a physical sense—necessary for the same reason that we cannot consume apple pie that does not exist, nor can we produce apple pie that is not consumed, except for the tragic alternative of waste and spoilage."

"Price guides all these matters, and if it is not allowed freedom in guiding them, serious maladjustments will occur so that we end up without the apple pie or with the pie produced only to spoil and waste. So, if we do not allow price to tell the truth, we are robbing ourselves of the true function of money—the greatest economic discovery of all time as measured by its effect on our level of living."

There is one major source of all price tampering—the government, be it federal, state or local. The N. I. C. B. pamphlet is aimed primarily against direct price fixing by the federal government. But its observations as to the disastrous economic effects of political action which forces prices to lie, and thus beguiles production and consumption into wasteful channels, apply with equal accuracy to other governmental acts which have the same effect. For example, consider the mendacity which government provision of tax-financed transportation facilities forces into the price structure of transportation service.

Recently Governor Dewey of New York announced the imminent beginning of construction of a so-called "throughway" (i. e., a six-lane, intersectionless superhighway) across the state, 486 miles, at an estimated cost of \$202 million—or \$415,000 per mile. Having

employed some "experts" who reported that the highway could not earn enough from tolls to carry the costs of construction, Governor Dewey has so little regarded the warning "the price system" afforded him against unremunerative capital expenditures that he has recommended that the "throughway" be constructed anyhow, as a charge on the taxpayers.

Such an undertaking, financed by taxes rather than tolls, will inject two big lies into the transportation price structure. It will cause the trans-New York price for truck transportation to prevaricate to the shipper to the effect that such transportation is far more economical than its actual total costs will be. At the same time, the expenditure of \$202 million of tax money in this manner will make taxes in the state just that much greater than they would be otherwise—a circumstance which will necessitate higher rates on the railroads (as the state's leading taxpayers) than would otherwise be necessary.

One might have thought that the State of New York had gone far enough in injecting costly and confusing falsehood into transportation pricing by its provision of a trans-state toll-free waterway—but not so; when the Empire State goes into things, including profligacy of its people's money and its undermining of self-supporting enterprise, it does not content itself with half measures.

The peculiar thing is that the business interests which will loudly cheer the N. I. C. B. pamphlet, accurately exposing the dangerous deception introduced into the economy by Chester Bowles' price-fixing strong-arm squad, will turn right around and applaud Governor Dewey for action against honest pricing in transportation, a deed which is economically an exact counterpart of what Mr. Bowles is doing, only that what Bowles does is less expensive of tax funds.

A "Staff College" For the Railroads?

Whether or not the main product of the A. A. R.'s Committee for the Study of Transportation—i. e., its findings of the things the railroads need to do the better to accommodate themselves to new conditions in their surroundings—will be fully utilized by the industry depends upon the alertness of the managements of the individual railroads and how well they are organized to absorb and put to use information of this kind. It will take time to determine to what degree such practical and profitable service is derived from the Committee's studies, but the *by-products* of its activities alone have well repaid the railroad industry for all that the Committee's work has cost. These "by-products" are (1) the eye-opening educational experience achieved by the 100-odd railroad officers who have consistently participated in the Committee's work and (2) the evidence which the Committee's activity has given to shippers and the public that the railroads are giving foresighted attention to their problems, and that they are not so busy with the individual trees that they cannot see the forest.

Private management of industry has continually to justify its position at the helm or it cannot expect to

remain there, surrounded as it is on every hand by ambitious bureaucrats, politicians and leaders of labor and other pressure groups, many of whom are eager to relieve management of its responsibilities. The railroads by their service in war-time demonstrated to the satisfaction of the public that they are in capable hands. Will they be able to continue that demonstration in peace-time? A great deal depends upon the public evidence they offer that they are seriously studying their problems and those of their customers, and of their willingness to modify time-honored practices wherever scientific inquiry demonstrates the need for change.

Thus it is that, from the standpoint of the railroads' reputation with the public—upon which largely depends the continuance of private operation—such activities as those of the Committee for the Study of Transportation are practically indispensable. If the Committee did not exist, or if it should be allowed to pass out of existence, there would be an acute need to establish some equivalent organization to take its place. The railroads, that is, need to have this kind of work done for them, as much for the evidence it affords of their alertness as for the guidance in policy-making which such systematic inquiry produces.

The other by-product of the Committee's work—the educational advantages provided for the railway officers who participate in its deliberations—is seldom mentioned, but is alone sufficient justification for the Committee's existence. It has long been a weakness in organization of a large part of the railroad industry that it has lacked a systematic method for training officers who are going to attain executive responsibilities into an adequate understanding of the duties of such positions. A man achieves his advancement on a railroad, usually, by demonstrating his ability in the work of a highly specialized department—operating, traffic, law, accounting, or one of the technical branches. The proficiency of an executive, however, has no necessary relationship to mastery of the duties of one particular department—but lies, on the contrary, in understanding how to coordinate all departments into a well-integrated whole. It is to luck rather than foresighted planning to which most of the credit must be given that men whose training lies entirely in the direction of specialization are usually able, as executives, to become effective integrators and synthesizers.

An Educational Device

The railroads do not now have, and never have had, another such effective set-up for giving their officers practical experience in learning about interdepartmental problems and problems of the railroad industry as a whole as they have in the Committee for the Study of Transportation. The Committee's effectiveness in this respect arises from the fact that the reports of its specialized subcommittees do not become "official" until they are adopted by the "big committee." This procedure makes it necessary for the subcommittees to moderate their zeal, as specialists, sufficiently to win the confidence of other committee members who have no particularized interest in their specialties. The procedure likewise makes it necessary for non-technical members of the "big committee" to learn something about the problems of the technical departments in order to

pass intelligently upon their recommendations. Thus it is that work with the "big committee" practically forces a participant to learn a great deal about the problems of railroad departments far removed from his own; and about those of the railroad industry as a whole, as they may differ from the immediate concerns of his own company.

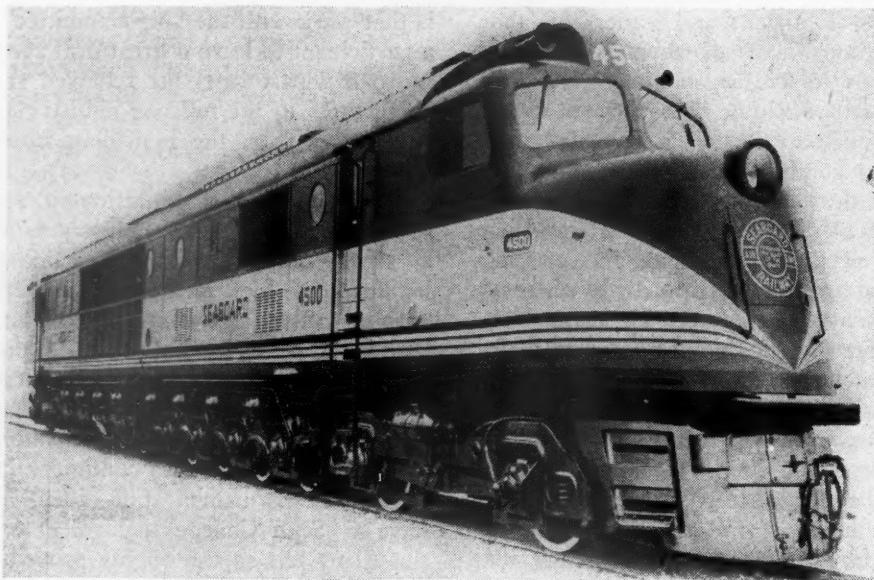
It is this kind of education in the problems of all departments, and of the industry as a whole, that gives a railway officer the kind of training which would be invaluable to him, if later on, he were given a position with executive, as contrasted to departmental, responsibilities. It is this kind of over-all training that the Army has for many years been providing its top officers in the War College. If some provision were made for rotation in the membership of the Committee for the Study of Transportation—with continuity preserved, perhaps, by a small permanent staff—then the railroads would have a "Staff College" equivalent to the set-up which the Army has so thoroughly proved to be an effective means of solving a problem which is as acute on the railroads as it is in the armed forces.

Grate Area and Heating Surface

In his article entitled "How Locomotive Boiler Performance Is Related to Boiler Proportions," which appeared in the *Railway Age* of January 19, page 186, W. F. Collins, engineer of tests, New York Central, presented an interesting and illuminating comparison of the test performance of the boilers of two of the highly developed steam locomotive classes of the New York Central. These are the J-3 4-6-4 passenger locomotive and the L-3 4-8-2 freight locomotive. One of the conclusions with respect to the comparative performance of these two boilers is that the L-3 boiler is superior to the J-3 boiler from the standpoint of steaming performance, although the analysis shows the J-3 to be slightly superior on the basis of heat absorption per unit of heating surface. Another conclusion is that the efficiency of combustion is practically the same for both boilers.

The conclusions with respect to steaming and heat absorption seem consistent with the heating surface of the two locomotives. The L-3 evaporative surface of 4,657 sq. ft. is about 11 per cent greater than that of the J-3 and the combined heating surface of 6,737 sq. ft. about 13 per cent larger than that of the J-3. The author deduces that, with a given amount of available heat, practically the same quantity can be absorbed through a smaller heating surface at a higher rate.

In considering combustion efficiency, the comparison of the great areas of the two fireboxes is pertinent. In this case the boiler with the smaller heating surface has the larger grate area by nearly nine per cent. Since the combustion efficiency is compared on the basis of the total heat fired in the firebox and on this basis the differences are insignificant, what are the limits in the relationship of grate area to heating surface? It would appear that the designer is afforded a wide range within which to choose.



Seaboard 3,000-hp. Diesel-electric locomotive built by Baldwin-Westinghouse

A Single-Cab 3,000-Hp. Diesel-Electric Locomotive for the Seaboard

The Baldwin-Westinghouse 4-8-8-4 type is powered with two 1,500-hp. supercharged engines—Electric motor capacity large—Maximum axle load 51,250 lb.

A DISTINCT milepost in the evolution of design of the Diesel-electric locomotive was passed with the building of a single-cab 3,000-hp. road locomotive for the Seaboard by the Baldwin Locomotive Works and the Westinghouse Electric Corporation. One of the advantages of the Diesel has been low axle-loading and among its less advantageous characteristics have been total length of units in multiple in relation to horsepower, the swivel-truck wheel arrangement for high-speed road service and the difficulty of including in the design a desirable excess of traction-motor capacity over engine horsepower.

This latest Baldwin-Westinghouse development is interesting from the standpoint of its relation to these factors. The adoption of a type of running gear that has been successfully used in several modern electric-locomotive designs has permitted the use of an unusual traction-motor horsepower capacity reserve, while the distribution of weight over the 4-8-8-4 wheel arrangement has kept the driving axle loading down to a maximum of 51,250 lb. per axle. The truck axle loading is 40,750 lb. per axle on the

leading truck and 42,850 lb. on the rear truck. The total weight of the locomotive is 577,200 lb. in working order. The weight on the eight drivers is 410,000 lb.

Although capable of a speed of 117 m.p.h., the maximum speed restriction of the new locomotive is 85 m.p.h. It will be put into service by the Seaboard in heavy, fast freight runs to carry fresh fruits and vegetables from Florida to the northern markets. Because of its speed and power it is expected that tree-ripened fruits can be gotten to market quickly and in huge quantities.

Trucks and Running Gear

The running gear of this locomotive consists of two four-axle articulated driving trucks. The outer end of each driving-truck bed is carried on a four-wheel engine truck. Both were furnished by the General Steel Castings Corporation. The articulated trucks have side frames, crossties, pedestals, engine-truck center pins, cab center plates, truck supports, motor suspensions and equalization cast integral. The

frame pedestals are equipped with rubber-insert pedestal gibs. The inner ends of the two articulated truck frames are connected by means of an articulated joint of the ball, socket and pin type, oil lubricated. The motor suspension is the bar type with spring-cushioned supports.

Forged low-carbon, nickel-steel, hollow-bored driving axles having a wheel-fit diameter of $9\frac{3}{4}$ in. are mounted in SKF roller bearings. The driving wheels are 40 in. in diameter, multiple-wear, furnished by the Standard Steel Works. The roller-bearing driving boxes have integral-cast cellars and water-tight lids. A cavity is provided in the top of each box for delivery of oil to the pedestal wearing surfaces. The boxes are arranged for oil lubrication of the bearings and are designed for the future application of the Edison bearing-temperature alarm system.

Equalization for each articulated truck consists of a three-point support with four driving axles connected together on the sides forming two points, while the third point is the engine-truck center pin. A semi-elliptic spring rests directly

upon each box with the ends connected to forged equalizing beams, except at the ends where spring-cushioned links connect to the articulated truck frame.

The four-wheel engine trucks have low-carbon, nickel-steel, hollow-bored axles with a wheel-fit diameter of $9\frac{3}{4}$ in., mounted in SKF roller bearings, with 40-in. Standard Steel Works' multiple-wear wrought-steel wheels. These trucks have cast-steel frames with side frames, transoms, end frames, gussets and pedestals cast integral. Each truck bolster is carried on restraint rockers which resist lateral pressure to the extent of approximately $27\frac{1}{2}$ per cent of the truck loading. Truck equalization consists of semi-elliptic springs applied to the top of each journal box with the inner end of each spring on the same side of the truck connected by means of an equal beam. The outer ends are connected to the truck frame with spring-cushioned links. A radius bar, equipped with a centering device attached to the articulated truck frames, is used on the inner end of each four-wheel truck to keep the truck from nosing when operating on tangent track.

The Diesel Engines

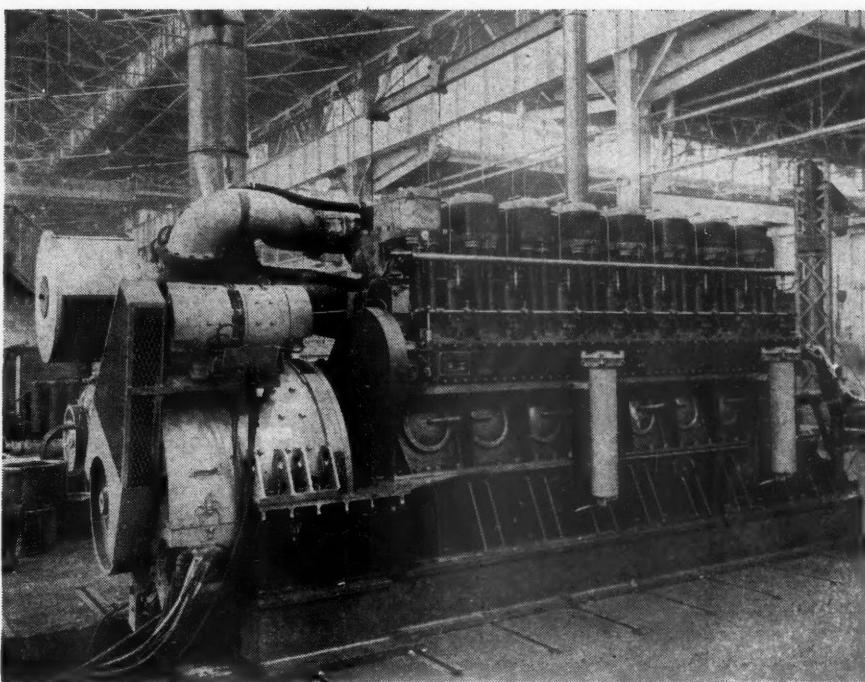
The prime movers in this locomotive are Baldwin four-cycle vertical in-line engines equipped with Elliott-Buchi turbochargers and each developing 1,500 b.h.p. at 625 r.p.m. The cylinders are $12\frac{3}{4}$ in. bore by $15\frac{1}{2}$ in. stroke. Engine rotation is counter-clockwise when viewed from the generator end.

The bed plate is a welded structure of steel, with an extension for generator support. The engine frame and cylinder housing, likewise, is welded steel.

The crankshaft is a heat-treated steel forging drilled for pressure lubrication. The diameter at the main bearings is $8\frac{3}{4}$ in. and at crankpins $8\frac{3}{8}$ in. The main engine bearings are removable through ports without disturbing the crankshaft. The connecting rods are heat-treated alloy steel, with renewable bearings and bushings.

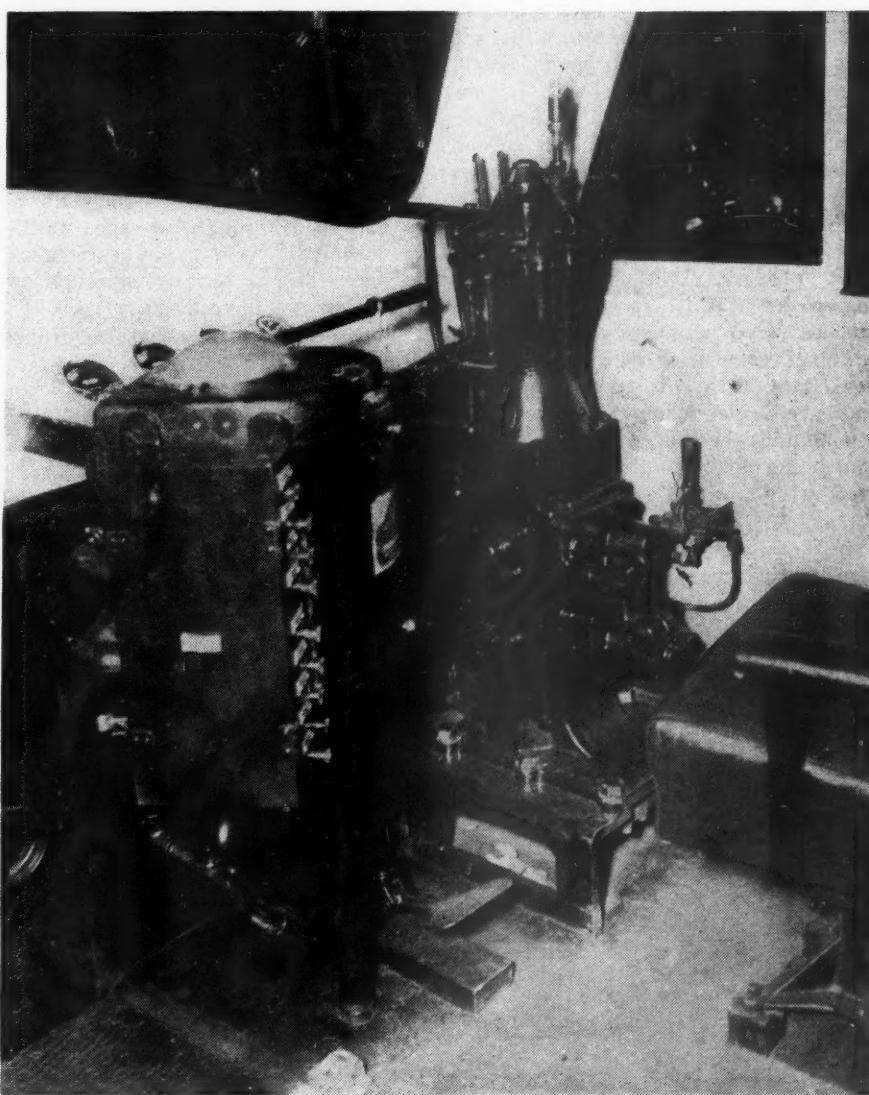
The cylinder liners are cast-iron, chrome-plated and mounted with rubber seal rings at the lower end. The aluminum-alloy pistons are oil cooled by means of a cast-in steel coil and each piston has five compression rings and three oil rings, one of the latter above the wrist pin and two below. The cylinder heads are individual castings, of iron, each head having two exhaust and two air intake valves and the fuel injector in the center of the head.

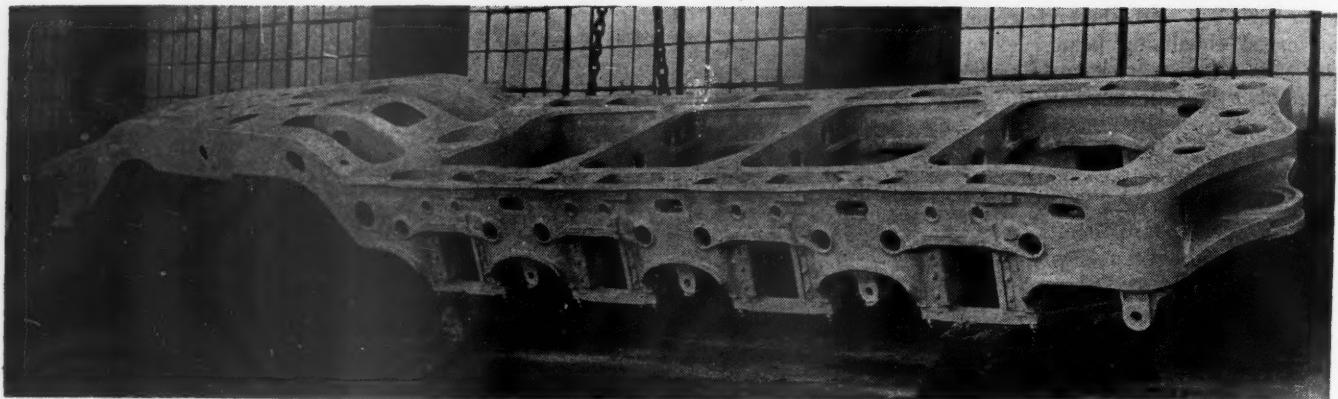
The valves are actuated by rocker arms which, in turn, are actuated by hollow push rods, socket-mounted in cam followers of the roller type. The valve mechanism is pressure lubricated. The camshaft, made in two sections bolted together, is on the right side of the en-



Above—The Baldwin-Westinghouse power-plant unit

Below—The controls at the operator's station





One of the articulated truck beds

gine viewed from the generator end, and is driven by a roller chain at the generator end. The shaft is mounted in split removable bearing shells. The camshaft sections are removable from the operating side of the engine.

Fuel Injection and Governor

The fuel injection system is of the solid-injection type with spring-loaded, multi-hole spray nozzles. An individual fuel pump is provided for each cylinder. A motor-driven pump transfers fuel oil from the storage tank through a cartridge filter and charges a fuel line from which the fuel-injection pumps take their supply. Relief valves and fuel cut-off valves are in the supply line. A gauge shows fuel-line pressure.

The engine has a centrifugal-trip overspeed stop, driven from the camshaft by gears. This device shuts the engine down if its speed exceeds the predetermined maximum speed setting.

The governor is of the hydraulic-relay type, gear driven from the camshaft, and is controlled manually from the cab. It maintains the proper engine speed by controlling the quantity of fuel delivered by the injection pumps. The gover-

nor oil pressure actuates the load control valve in correct sequence through the exciter field of the electric transmission system.

Engine Lubrication

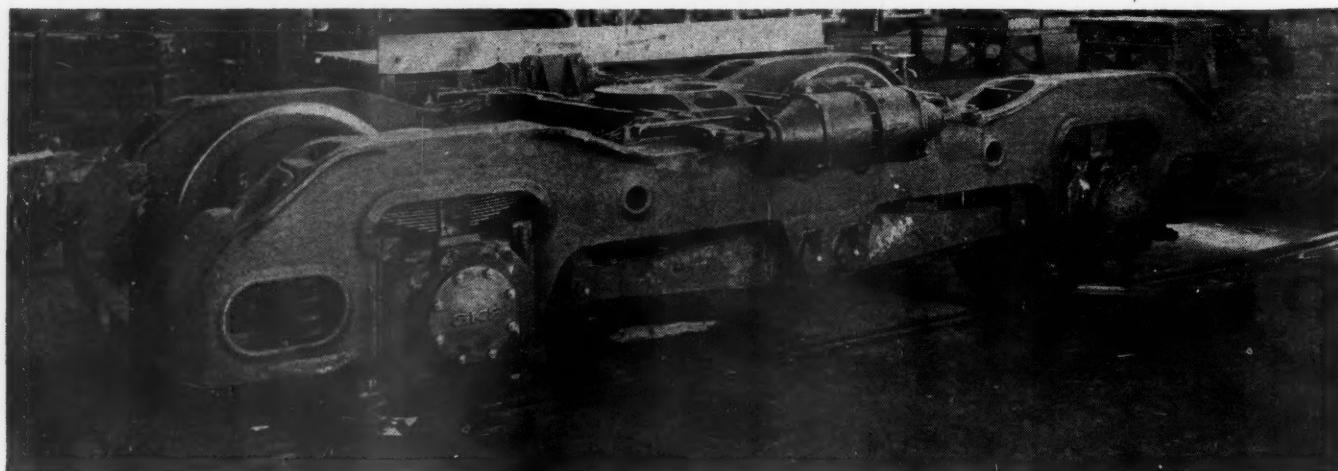
The lubricating-oil system is of the pressure type. Oil is circulated by a positive displacement gear pump, chain driven from the crankshaft. The lubricating-oil supply is contained in the bedplate, from where it is drawn by the pump through a suction strainer, and delivered to the radiator. After passing through the radiator, the oil flows through a metal-edge full-flow strainer mounted on the engine. It is then delivered under pressure to the main bearings. From the main bearings the oil is conveyed through passages in the crankshaft to the crankpin bearings and to the wristpin bearings through the center holes of the connecting rods. The engine also has a filter equipment operating on the by-pass system.

Supercharger

The engine is equipped with an Elliott-Buchi Turbocharger. The Turbo-

charger is a self-contained unit, comprising a gas turbine and a centrifugal blower mounted on a common shaft. The exhaust gas from the engine cylinders is conveyed to the Turbocharger through four pipes (two cylinders per pipe). The energy in the exhaust gas from the engine cylinders is used to drive the centrifugal blower, without demand on the power developed by the engine. The blower supplies all of the air required by the engine at a pressure a few pounds above atmospheric (approximately 5 to 6 lb.).

The Turbocharger unit is used in conjunction with the Buchi system of pressure scavenging and charging the engine. The air delivered by the Turbocharger accomplishes two things; first, it scavenges the hot gases otherwise left in the engine cylinder at the end of the exhaust stroke and replaces these hot gases with cooler, fresh air; second, it results in an air charge of higher density and pressure at the end of the suction stroke. The provision of a greater amount of fresh air permits the combustion of a greater quantity of fuel, and, consequently, a higher output from a Turbocharged engine than from an engine not so equipped.



The engine trucks are the four-wheel type

The valve timing of an engine arranged for the Buchi system of pressure charging differs primarily from that of the same engine uncharged in that the exhaust valves of the pressure charged engine close later, and the inlet valves open earlier. This arrangement provides a greater period of valve overlap, during which both inlet and exhaust valves of a particular cylinder remain open. Scavenging is thereby effected when the piston is near top dead center. Timing of the valve opening and closing is so arranged, and the dimensions of the exhaust manifolding are so selected, that timed pressure fluctuations set up in the exhaust manifolding permit scavenging with the air delivered by the Turbocharger blower.

Scavenging the combustion space with cool air effects a considerable degree of cooling of the cylinder head, cylinder walls, valves, and piston. For this rea-

Baldwin-Westinghouse 3,000-Hp. Diesel-Electric 4-8-8-4 Type Locomotive	
Gage, ft.-in.	4-8½
Diesel engines:	
Two, 8-cylinders in line, supercharged, b.h.p. each	1,500
Driving motors:	
Number	Eight
Maximum safe speed (railroad restriction) m.p.h.	85
Gear ratio	25:54
Type	370
Journal bearings, in.	6½ x 12
Wheels:	
Driving, pairs	Eight
Idling, pairs	Four
Diameter, in.	40
Wheelbase, ft.-in.:	
Truck (driving)	16-3
Total locomotive	77-10
Total weight, lb.:	
In working order	577,200
Light	520,000
On drivers	410,000
Maximum overall dimensions, ft.-in.:	
Width	10-6
Height	15-3
Length (inside knuckles)	91-6
Tractive force, lb.:	
Starting, at 30 per cent adhesion	123,000
Continuous rating, at 20.5 m.p.h.	45,300
Minimum radius curvature, locomotive train, ft.	359
Supplies (total capacity), gal.:	
Lubricating oil	330
Fuel oil	3,500
Engine cooling water	600
Heating boiler water	2,500
Sand, cu. ft.	40

son, a greater amount of fuel can be burned, and greater power developed in an engine supercharged with the Buchi system without harmful effects on these engine parts due to excessive heat.

No control over the Turbocharger is necessary, as the correlated action of the turbine and blower is entirely automatic. The speed and output of the Turbocharger vary automatically and promptly with variations in load or speed, or both, of the engine. The Turbocharger operates at approximately 10,000 r.p.m. when the engine is operating at full load and full speed.

Cooling water and lubricating oil for the Turbocharger is supplied from the engine system, and lubricating oil in excess of the amount required for lubri-

Tonnage Ratings for Baldwin-Westinghouse Type 4-8-8-4 3,000-Hp. Diesel Locomotive

Grade, per cent	Speed, m.p.h.				
	20.5	30	40	50	60
Level	6,500	4,325	2,740	1,915	1,380
.2	4,460	2,610	1,710	1,210	882
.4	3,060	1,825	1,195	850	610
.6	2,290	1,370	890	625	440
.8	1,810	1,080	690	475	326
1.0	1,475	875	547	366	240
1.2	1,235	720	440	285	176
1.4	1,060	605	357	220	125
1.6	910	511	291	169	85
1.8	793	435	234	127	50
2.0	695	372	192	92	...
2.2	615	320	148	62	...

Note: These ratings are based on sea level, 40-in. wheels, tangent track, grades compensated for curvature, 50-ton cars and a 25:54 gear ratio.

cation is circulated through the Turbocharger for cooling the bearings.

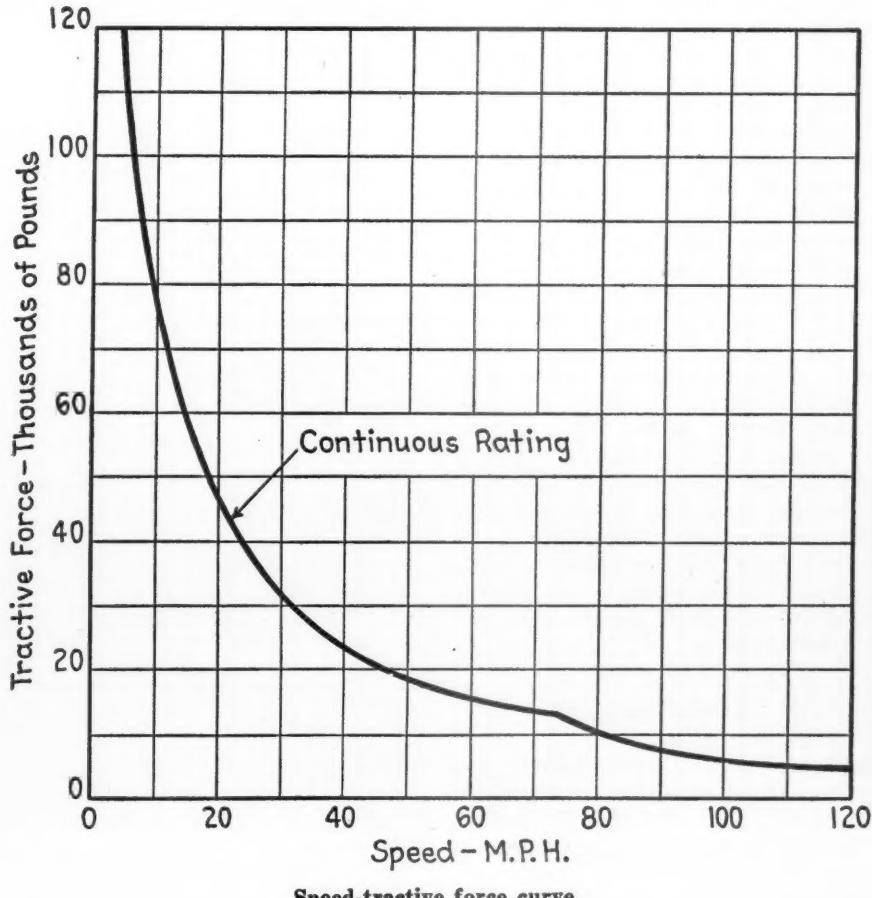
Engine cooling is effected by a chain-driven centrifugal water pump, mounted on each engine, which circulates water through the radiator and engine. The radiator is of such capacity as is necessary for cooling the engine jacket water and lubricating oil at full load. Thermostatically controlled shutters insure correct engine temperature. There is an independent radiator piping system for each engine, including an expansion tank and pipe connection for filling, draining, and steam connection.

489-B generator. It is a 12-pole, self-ventilated, single-bearing generator, supported from an extension of the engine bed. A belt-driven two-bearing machine rests on top of the generator frame. This machine contains the Westinghouse differential exciter for the main generator and the auxiliary generator for charging the storage battery and supplying the control and auxiliary power for the locomotive. The auxiliary generators on the two power plants are controlled by voltage regulators holding constant voltage with variable machine speed. The two auxiliary generators operate in parallel electrically.

The differential exciter operates in conjunction with the Westinghouse Autoload control system, which auto-

Electrical Equipment

Each of the 1,500-hp. engines is direct-connected to a Westinghouse Type



matically adapts the electrical load to match the output of the Diesel engine under all conditions.

The locomotive has eight axle-hung traction motors, four of which are in each locomotive truck. These motors are of the series, six-pole type and each is separately ventilated. The four motors in each truck are connected to their generator in series-parallel, and two steps of field control are used. The gear ratio is 25 to 54. The locomotive continuous rating is 44,500 lb. tractive force at 20.2 m.p.h. The electrical equipment will absorb full engine horsepower up to 72 m.p.h. The maximum safe speed is 117 m.p.h. with worn wheels.

The traction motors are ventilated through ducts in the locomotive underframe feeding into openings in the top of the motors. Each group of four motors are supplied by a motor-driven blower. The motors driving the blowers are supplied by the main generator. The two motors operate in series.

Cooling Radiators

The radiators for cooling the engines are located in the center section of the locomotive and are ventilated by four vertical propeller type fans. Each fan is driven by a series motor. The radiator shutters and the speed of the fan motors are thermostatically controlled to provide constant water temperature. The four fan motors are supplied by the main generators and operate four in series, or two in series, with full field or weak field as required for proper cooling. Air for cooling the radiators and the traction motors is drawn directly from openings in the sides of the locomotive. The section containing the ventilating apparatus is separated from the engine compartments by partitions, assuring cool, clean air.

The detail pieces of control apparatus are of conventional design. They are housed in cabinets in the same section as the ventilating apparatus with special consideration to accessibility for maintenance. During engine idling periods, the main-generator voltage is raised to operate the blower and fan motors. When the controller is moved to the first power position, the generator excitation is reduced to zero, then gradually increased by movement of the throttle handle to provide a smooth application of tractive power.

Underframe

The underframe is constructed of steel plates and shapes with a truss support. The entire unit is electrically welded. The underframe supports the cab, engine compartment and radiator compartment, and is carried by the articulated running

gear. Fuel-oil tanks, water tanks, and the storage-battery compartments are built integral with the underframe.

Jacking pads having non-skid surfaces are provided at various points to facilitate maintenance. The center pin

Partial List of Material and Equipment on the Baldwin-Westinghouse Locomotive

Wheels; axles; springs	Standard Steel Works Division of Baldwin Locomotive Works, Philadelphia, Pa.
Boxes: driving and truck	SKF Industries, Philadelphia, Pa.
Engine trucks; articulated driving trucks	General Steel Castings Corp., Eddystone, Pa.
Pushrod and cam follower needle bearings	Torrington Mfg. Co., Torrington, Conn.
Crankpin bearing	American Bearing Corp., Indianapolis, Ind.
Camshaft bearings	The Cleveland Graphite Bronze Co., Cleveland, Ohio.
Steel castings	Reading Steel Casting Division of American Chain & Cable Co., Inc., Reading, Pa.
Diesel engine mounting pads	Lebanon Steel Foundry, Lebanon, Pa.
Coupler and yoke	Fabreeka Products Co., Boston, Mass.
Compressor flexible coupling	Buckeye Steel Castings Co., Columbus, Ohio.
Air brake equipment; air compressors	Thomas Flexible Coupling Co., Warren, Pa.
Foundation brake equipment	Westinghouse Air Brake Co., Wilmerding, Pa.
Sanders; bell ringer operating valve	American Brake Division of Westinghouse Air Brake Co., Swissvale, Pa.
Slack adjuster	U. S. Metallic Packing Co., Philadelphia, Pa.
Sander operating valve; inspection card frame	Universal Slack Adjuster Company, Philadelphia, Pa.
Cylinder liners	The Prime Manufacturing Co., Milwaukee, Wis.
Pistons	The Cooper-Bessemer Corp., Mt. Vernon, Ohio.
Piston rings	Aluminum Co. of America, Pittsburgh, Pa.
Piston cooling coils	American Hammered Piston Ring Division, Koppers Company, Baltimore, Md.
Wrist-pin bushing	Boiler Erection & Repair Company, Philadelphia, Pa.
Valves and window wipers	Buckeye Brass & Mfg. Co., Cleveland, Ohio.
Fuel shut-off valve	The Hays Corporation, Michigan City, Ind.
Inlet and exhaust valves	Locomotive Equipment Division of Manning, Maxwell & Moore, Inc., Bridgeport, Conn.
Valve springs	Thompson Products, Inc., Cleveland, Ohio.
Connecting rods	Barnes-Gibson-Raymond Division of Associated Spring Corp., Detroit 11, Mich.
Lubricating oil pump; fuel oil pump	Park Drop Forge Co., Cleveland, Ohio.
Lube oil strainer	Geo. D. Roper Corp., Rockford, Ill.
Lube oil filter	Furolator Products, Inc., Newark, N. J.
Lube oil pressure and water temperature control switch	Commercial Filters Corp., Boston, Mass.
Fuel injection equipment	Detroit Lubricator Co., Detroit, Mich.
Fuel oil tank fillers	Scintillo Magneto Division, Bendix Aviation Corp., Sidney, N. Y.
Remote fuel oil gauge; remote water tank gauge	Protectoseal Co., Chicago.
Fuel oil tank level gauge; water tank level gauge	Fluids Control Co., Philadelphia, Pa.
Bell ringer oil cups; radiator oil hose	Rochester Mfg. Co., Inc., Rochester 10, N. Y.
Radiator oil hose	C. A. Norgren Co., Denver, Colo.
Water and lube oil pump; sprockets	Chicago Metal Hose Corp., Maywood, Ill.
Cooling water pump	Diamond Chain & Mfg. Co., Indianapolis, Ind.
Oil seals	Weinman Pump Mfg. Co., Pittsburgh, Pa.
Air intake silencer and cleaner	The Chicago Rawhide Mfg. Co., Chicago 22, Ill.
Draft gear	Burgess-Manning Co., Chicago.
Governor	Waugh Equipment Co., New York.
Turbocharger	Woodward Governor Co., Rockford, Ill.
Fire extinguisher	Elliott Company, Jeanette, Pa.
Traction-motor blower; axial flow fans (cooling system)	American-LaFrance-Foamite Corp., Elmira, N. Y.
Traction-motor blower motor; electrical equipment	Buffalo Forge Co., Buffalo 4, N. Y.
Steam generator and remote control	Westinghouse Electric Corp., East Pittsburgh, Pa.
Gaskets	Vapor Car Heating Co., Inc., Chicago.
Crankshaft	Detroit Gasket & Mfg. Co., Detroit, Mich.
Operator's seats	Garlock Packing Company, Palmyra, N. Y.
Cab trap door; number light frame	Pierce-Roberts Co., Trenton, N. J.
Front cab floor covering	Vellumoid Company, Worcester, Mass.
Front cab window arrangement and windshields	Elwood City Forge Co., Elwood City, Pa.
Fibreglas cab insulation	Coach & Car Equipment Co., Chicago.
Water level gauge	O. M. Edwards, Inc., Syracuse, N. Y.
Water temperature gauge	Armstrong Cork Co., Lancaster, Pa.
Radiators	Hunter Sash Co., Inc., Flushing, N. Y.
Radiator shutters and operating mechanism	Gustin-Bacon Mfg. Co., Kansas City, Mo.
Radiator water hose	Crane Co., Chicago.
Intake grills	Stewart-Warner Corp., Chicago.
Internal quick-acting bell ringer and needle valve assembly	Modine Mfg. Co., Racine, Wis.
Air horns	Minneapolis-Honeywell Regulator Co., Minneapolis 8, Minn.
Pipe fittings	Goodall Rubber Co., Inc., Philadelphia 4, Pa.
Welding fittings	Barber-Colman Company, Rockford, Ill.
Front classification lamp arrangement; front headlight	Railway Service and Supply Corp., Indianapolis, Ind.
Number light stencil	The Leslie Co., Lyndhurst, N. J.
Rear headlight	Chase Brass & Copper Co., Inc., Waterbury, Conn.
Sun visors	Crane Co., Chicago.
Windshield glass	Walworth Company, New York.
Water cooler; toilet	Tube-Turns, Incorporated, Louisville 1, Ky.
Coat and hat hooks	The Pyle-National Company, Chicago.
Clothes locker	Garrett-Buchanon, Philadelphia, Pa.
Hardware	Electric Service Mfg. Co., Philadelphia, Pa.
Paint	Fulton Co., Milwaukee, Wis.
	H. L. Bennett, Philadelphia, Pa.
	Dayton Rubber Mfg. Co., Dayton 1, Ohio.
	Simmons Hardware Co., St. Louis, Mo.
	A. L. Hansen Mfg. Co., Chicago.
	Adams & Westlake Co., Elkhart, Ind.
	H. S. Getty & Co., Inc., Philadelphia, Pa.
	The Stanley Works, New Britain, Conn.
	E. I. du Pont de Nemours & Co., Inc., Wilmington, Del.

at No. 1 end is of conventional construction and housed in a center plate in the front articulated truck frame. Center pin at No. 2 end is cylindrical, guided by a rectangular block located in a rectangular opening in the rear articulated truck frame, restraining the lateral motion of the cab, but allowing free fore and aft movement. Wearing plates and dust guards are provided for each center pin. They are oil lubricated. A centering device is applied at the center of the locomotive underframe to restrain motion of the driving trucks in respect to the cab, when the locomotive is on a tangent track. One member of this device is attached to the underframe while the other member, consisting of a bar recessed on both sides, is attached to the front articulated truck frame. To the member attached to the cab underframe is applied a set of rollers which normally engage the recesses in the truck-attached bar, thereby restraining the articulated trucks on tangent track, but offering a minimum resistance upon curves after the rollers have been moved out of the recesses. The desired restraint is obtained on tangent track by means of suitable coil springs.

Superstructure

The engine compartment is constructed of sheet metal, braced with carlines. Roof hatches give ready access to engine heads, valve actuating mechanism and other equipment. Ventilation is accomplished through side louvres. Per-

manent light fixtures for inspection lamps are provided. The passageway flooring is of non-skid design. Rain gutters are applied over all outside doors and movable windows.

The cab is constructed of metal plates and shapes, thoroughly braced, electrically welded, and lined with insulating material. The entire unit is rigidly secured to the underframe. Stationary and operable metal cab window frames are provided wherever required. Cab doors are of metal, and both cab window frames and doors are glazed with shatterproof glass. The flooring, with insulation on the underside, is supported by steel plates. The walls and ceiling of the cab are lined with insulating material.

Cushioned seats and upholstered arm rests are provided for the operator and helper. Cab fixtures include a hand-operated ventilator, pneumatic window wipers, defroster, sun visors, water cooler, speedometer, train-crew signal, fire extinguisher, cab lights, heater, brake gauges, wheel-slip indicator, inspection-card holder, control for headlights and engine compartment lights, bell, horns, sander, etc.

The radiator compartment is located adjacent to the engine and is substantially constructed of sheet metal and structural shapes. This compartment houses the oil and water radiators, cooling fans, shutters, etc.

The fuel oil tank is of welded steel, substantially braced, having baffle plates to prevent surging. The tank is equipped

with Protecto-Seal vents and filler caps and suitable liquid level indicators.

Buckeye couplers are used at both ends of the locomotive, a retractable unit at the front end and a Type E at the rear. The couplers swing on each side of center, $9\frac{1}{4}$ in. and $8\frac{3}{4}$ in., respectively. The rear-end draft gear is Waugh twin cushion Type WM-6-LB.

Brake Equipment

The foundation brake rigging, furnished by the American Brake Division of Westinghouse Air Brake Company, is of the clasp type with two brake shoes on each of the driving and engine truck wheels. The rigging includes levers and rods of high-tensile steel, hardened pins and bushings and Univdrsal slack adjusters. Individual brake cylinders are used on each of the driving wheels and each engine truck has two duplex cylinders.

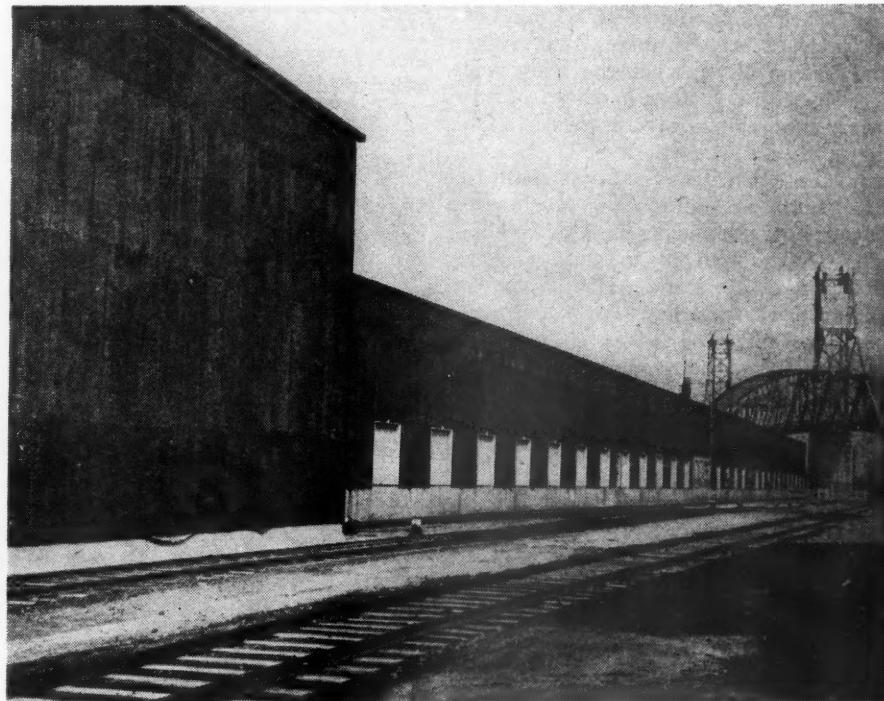
The train heating boiler is a Vapor-Clarkson Type CFK-4225 having a capacity of 2,250 lb. per hr. Remote boiler controls are located in the cab on the left side and the boiler gauge panel is visible through a porthole in the back cab bulkhead.

The air-brake equipment is Westinghouse Type 24 RL with automatic and straight air. A pedestal brake-valve stand and independent self-lapping brake valve are included in the equipment. Air is supplied by a compound air compressor on each engine set for unloading at 140 lb. pressure.

"Plastipitch" Protected Metal

A new compound named "Plastipitch," has been developed by the Tar and Chemical Division of Koppers Company, Inc., Pittsburgh, Pa., which can be used on flat, corrugated or V-crimped sheet metal for roofing, siding, gutters, ventilators, flashings and ducts. This coating, designed to protect metal against highly-corrosive atmospheres, is said to be particularly effective against the smoke-laden atmosphere frequently encountered around railroad shops, enginehouses and terminals.

It is said that steel sheets protected by Plastipitch do not require further painting because the coating provides an armor against deterioration, that such sheets can be easily fabricated without special equipment and can be bent without impairing the coating, which is tough and elastic, and that the coating has permanent adherence to the metal at low as well as high atmospheric temperatures.



Plastipitch-coated metal is suitable for roofing, siding, gutters, etc., on structures where highly corrosive atmospheres are encountered

Cotton Belt Installs 121 Miles of C. T. C.

Project between Pine Bluff, Ark., and Lewisville, facilitates trains on single track where grades and curves previously caused delays



Track and signal layout at south end of Fordyce

THE St. Louis Southwestern has recently completed the installation of centralized traffic control on 121 miles of single track between Pine Bluff, Ark., and Lewisville, this being a bottleneck section, with a further handicap of numerous curves and several grades. On the north end, the St. L. S. W. has its main line from East St. Louis south to Pine Bluff, in addition to branches to Wyatt, Mo., Caruthersville, Mo., Blytheville, Ark., Memphis, Tenn., Gillett, Ark., and Little Rock, Ark. Traffic to and from all these lines is concentrated at Pine Bluff.

Similarly at the south end, the main

line extends through Texarkana, Ark., Tyler, Tex., and Waco, while other main lines branch off from Lewisville to Shreveport, La., from Mount Pleasant, Tex., to Dallas and Ft. Worth, and from Tyler to Lufkin. Thus the 121 miles between Pine Bluff and Lewisville is somewhat of a bottleneck from both directions. Furthermore, in this territory the railroad crosses four major rivers and passes through hilly country with several stiff grades and numerous curves, all of which tend to increase the number of trains as well as the time on the road.

Physical Character of the Line

Pine Bluff is on the south bank of the Arkansas river at an elevation of 212 ft. above sea level. The bridge over the Saline river, 28 miles south of Pine Bluff, is at an elevation of 150 ft., and the bridge over the Ouachita river, at Camden, 69 miles south of Pine Bluff, is at an elevation of 121 ft. At Lewisville, which is 6 miles north of the bridge over the Red river, the elevation is 265 ft. Between the four rivers, the railroad crosses rolling hilly country with considerable rise and fall, reaching elevations up to 348 ft. at various places. The grades are not long, ranging to about 1.5 miles at the most. The maximum grade southbound is 1.17 per cent,

and northbound 1.14 per cent. The Class 800 locomotives used on most of the through freight trains are rated at 2,900 tons southbound and 3,300 northbound between Texarkana and Fordyce, and 3,300 between Fordyce and Pine Bluff.

On some sections the curvature is light, but on other sections through the hills the curves are numerous and range up to 4 deg.; for example, in the 4 miles just north of McNeil there are seven curves, three of which are about 2 deg., one 3 deg. 10 min., one 3 deg. 55 min., and two 4 deg. In the five miles north of Stephens there are 10 curves ranging up to 4 deg. In the 2 miles north of Buena Vista there are nine curves ranging up to 4 deg. On two curves the speed of freight trains is limited to 25 m.p.h., on two curves to 35 m.p.h. and on one curve to 40 m.p.h.; elsewhere the limit is 50 m.p.h. The track is in good operating condition with 112-lb. rail on the greater part of the division.

Number of Trains

For many years the Cotton Belt has had an enviable reputation for fast freight service. The Blue Streak is a fast freight train, leaving St. Louis each evening with deliveries in Little Rock, Memphis and Pine Bluff the next morning, as well as in Fordyce, Camden, Texarkana and Shreveport by noon or late afternoon the next day; and in various points in Texas, including Dallas and Fort Worth, the second morning. More extensive fast freight service is planned for the post-war period.

The "Morning Star" passenger train is operated daily between St. Louis-Memphis on the north and points in Arkansas and Texas on the south end. The "Lone Star" passenger train is operated each direction daily between Memphis and points in Texas, by way of Pine Bluff and Lewisville. Quite likely new equipment and faster schedules will be arranged for these as well as perhaps additional trains in the near future. The first objective of installing the centralized traffic control was to improve safety and reduce delays to war-time freight traffic on the Pine Bluff-Lewisville section, but this new signaling will continue as a benefit in the improvement of train schedules and performance in the post-war period.

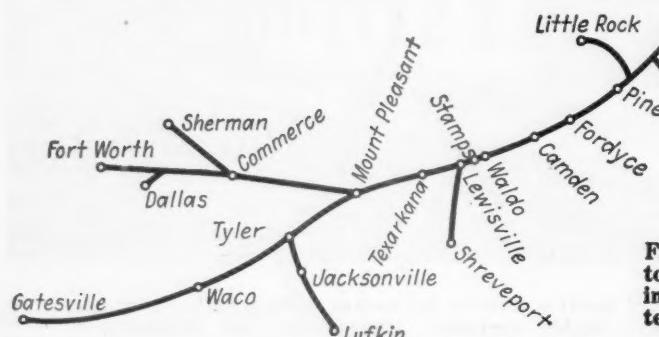


Fig. 1—Map of the Cotton Belt showing the importance of the c.t.c. territory between Pine Bluff and Lewisville

Previously the train movements on this division were authorized by timetable and train orders, no automatic block signaling being in service, and the switches at sidings were operated by hand-throw stands. As the volume of traffic increased during 1942 and the early part of 1943, the number of trains increased to as many as 40 per day, with a maximum of about 45. With this



Fig. 2—Map showing only the c.t.c. territory with the locations and car capacities of the power operated sidings

many trains, the train order system proved to be entirely inadequate, many of the trains encountering excessive delays to the extent that the congestion on this division was a drag on the operations of the through routes on the remainder of the railroad. A decision was made, therefore, to install centralized traffic control on the entire 121 miles of single track between Pine Bluff and Lewisville.

Layouts of Sidings

At Camden the train speeds are restricted to 15 m.p.h. on account of street crossings and station layout, and also most of the trains stop here for water. In order to prevent delays, the former siding, 2.7 miles long, was converted to a northward main track signaled for one direction, while the former main track is signaled for both directions. The remainder of the 121 miles between Pine Bluff and Lewisville is single track, and is equipped with C.T.C. for operation of trains by signal indication.

During the past few years certain sidings had been lengthened, so that five sidings now have capacities ranging from 70 to 84 cars, two sidings range from 90 to 99 cars, seven sidings from 102 to 115 cars, and other longer ones 145, 147, 166 and 228 cars. In addition, at Stamps and at Ogemaw special sidings hold up to 194 cars. At Rison there

are two sidings arranged as a lap, in which one siding holds 110 cars and the other 147 cars. At the north end of Fordyce a single-track Rock Island main track crosses the Cotton Belt, this crossing being protected by a mechanical interlocking, which also includes the north switch of the east siding which holds 172 cars. The locations and capacities of the sidings are indicated on the map in Fig. 2. The centralized traffic control project included the installation of electric switch machines for the operation of the switches at 18 sidings, in addition to the ends of double-track switches at both ends of Camden and the south end of the east siding at Fordyce, the south end of Pine Bluff and the north end of Lewisville, thus totaling 41 power switch layouts, each of which includes the standard arrangement of semi-automatic C.T.C.-controlled signals for directing train movements by signal indication.

Previously when using hand-throw switch stands, some of the sidings could not be used by heavy trains because the grades are such that if a train stopped for the brakeman to throw a switch, it could not be started again on the grade. At other locations the grades were adverse for a train to get started if it stopped to let the brakeman close the switch after the train was out on the main track. With power switch machines, these train stops are avoided,

thus increasing flexibility and reducing train delays, because more sidings are now available for use by heavy trains.

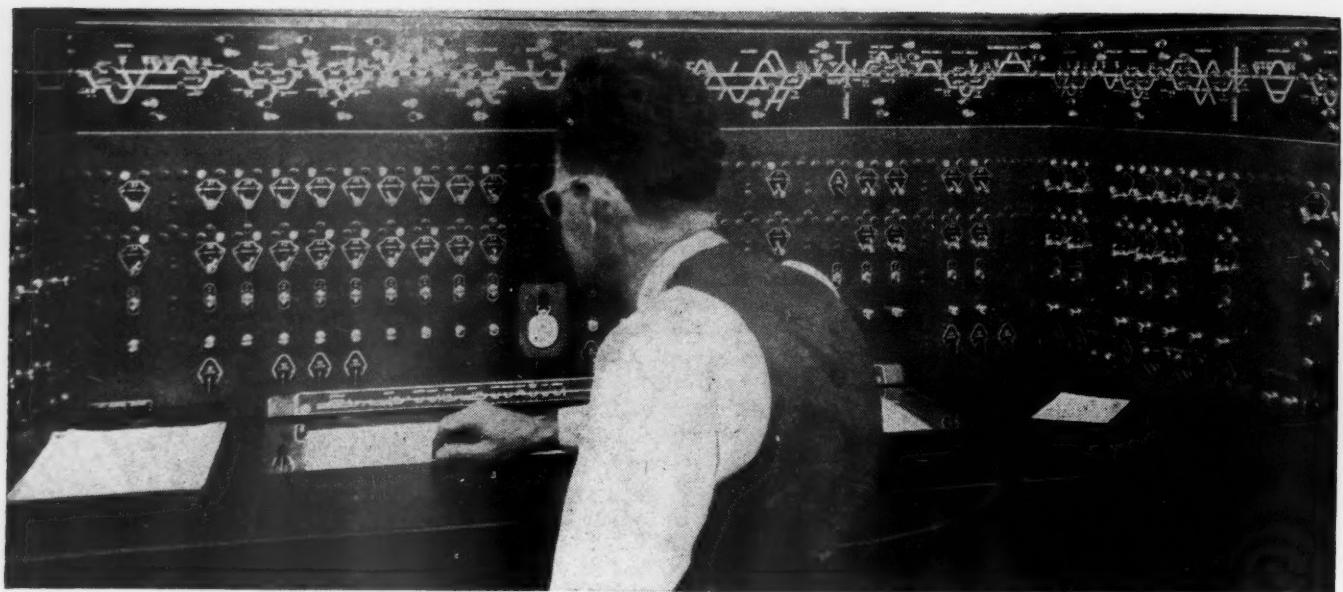
At certain main-track hand-throw switches leading to industry spurs or short sidings not used for passing through trains, electric locks were applied to the previously existing hand-throw stands. A total of 52 switches are so equipped, and these locks can be released under the control of the dispatcher in charge of the C.T.C. control machine.

Protection at L. & A. Crossing

At Stamps a single-track main line of the Louisiana & Arkansas crosses the Cotton Belt main track and siding. As a part of the new program an automatic interlocking was installed to protect this crossing. Normally the signals are set to display the Stop aspect on both roads. For example, if a train approaches on the L. & A., the signals on the St. L. S.W. are locked at Stop, and the signal for the L. & A. train is cleared.

At Warner, Ark., about 4 miles north of Camden, the Rock Island installed a spur track which crosses the St. L. S. W. to serve a Navy Ordnance Plant. As protection for this crossing, interlocking home signals were installed on the St. L.S.W., with Hayes derails on the Rock Island which are pipe-connected to a switch stand at the crossing. The operation of this stand is controlled by an electric lock, under the control of the dispatcher in charge of the C.T.C. machine, as well as locally by track occupancy of certain track circuit limits and approach sections.

When a Rock Island switch engine is ready to move over the crossing the



The one machine at Pine Bluff controls the entire 121 miles of c.t.c.

conductor uses the telephone to inform the St. L. S. W. dispatcher. Then if the dispatcher is ready for the move to be made, he sends out a release control, and this unlocks the lock if no train on the St. L. S.W. is occupying the home signal limits or an approach section. When the lock is released, the conductor can operate the crank to pull the plunger out of the rod, so that he can then operate the stand to throw the derails off the track. Also when the lock is released, the home signals on the St. L. S.W. are set at the Stop aspect, and remain at this aspect until the Rock Island train has moved over the interlocking limits and the derails are placed normal and the lock is restored to normal.

The C.T.C. Control Machine

The C.T.C. control machine for the entire 121 miles is located in the dispatcher's office at Pine Bluff, which is also the headquarters of the division superintendent. None of the available offices were of fire-proof construction, and, therefore, a new one-story brick office building was constructed to house the telegraph office and dispatcher's office, in which the C.T.C. control machine is located.

As shown in one of the photographs, the panels of the machine are arranged in a "U" shape so that the dispatcher can reach any lever without leaving his chair. The illuminated diagram includes lamps which repeat track occupancy of each section of main track between sidings, each section of main track opposite a siding, each detector section at a power switch layout, and each siding, this latter feature requiring the installation of track circuits on sidings which are used also in the control of take-siding signal aspects.

Another feature of this machine is the provision of small arrows and lamps above the diagram which are lighted to show the direction of traffic between sidings, and similar arrows and lamps below the diagram indicate the direction of traffic on the sections of track opposite the siding. These traffic direction indicators are a time saver for the dispatcher in the operation of the machine. The top row of levers controls the power switches, and the next row controls the signals at the switches for authorizing train movements. Toggle levers under the signal levers are for the control of maintainers' call lamps at the instrument houses near each of the power switches. At the bottom of the panel there are several push-to-turn buttons which control the electric locks on the hand-throw main-track switches.

In the top of the desk portion of the machine there is an automatic train graph with pens that indicate when trains pass through each of the OS sec-

tions at the 40 power switch locations. The dispatcher draws in connecting lines which complete a graphic record of train operations.

New Signal Pole Line

On this division the Western Union pole line was constructed with one crossarm and short poles, so that it was not practicable to add a crossarm for the signal line wires unless the pole line was completely reconstructed, which was estimated to cost considerably more than a new separate pole line for the signal line wires. This new pole line, built by signal forces, includes 25-ft. poles with a minimum of $17\frac{1}{2}$ -in. circumference at the top, these poles being Southern pine treated full length with a retention of 8 lb. of creosote per cubic foot. The poles are set 30 to the mile, which is about 176 ft. apart. Higher poles ranging from 35 ft. to 55 ft. were used at highway crossings and within station limits. The cross arms are creosoted pine, 10 ft. long, with a capacity for 10 pins.

The two line wires for the C.T.C. code and also the two line wires for the automatic controls of signals are No. 10, Copperweld with weatherproof covering. The two line conductors for the 550-volt a-c. power distribution circuit are each made up of one No. 10 Copperweld and two No. 10 solid copper wires, which are all twisted together to form the equivalent of No. 6 copper conductors.

This centralized traffic control, including the new pole line, was installed by the St. Louis Southwestern forces under the jurisdiction of W. S. Hanley, chief engineer, and under the supervision of B. J. Alford, signal engineer. The plans and major items of material were furnished by the Union Switch & Signal Company.



Electronic carrier apparatus by means of which the 121 miles of c.t.c. is controlled from one office at the north end



The first ship was loaded at the new dock in July, 1945, while construction on the outshore end was being completed

C. N. R. Builds Large Ore Dock

\$2,500,000 facility completed at Port Arthur, Ont., to load boats for shipment to lower Great Lakes ports, features modern concrete construction and a high approach trestle

THE Canadian National recently finished the construction of a large, modern ore dock at Port Arthur, Ont., which was rushed to completion largely as a war-time measure. This dock, with four unloading tracks, is one of the largest construction projects of its kind in recent years, with many interesting features, and will, undoubtedly serve as an important peace-time facility.

The Port Arthur ore dock, which extends out into Lake Superior, was built to serve the recently developed Steep Rock iron mines near Atikokan, Ont., about 140 miles west of Port Arthur. The ore from these deposits is of exceptional quality, being low in silica and high in iron content, and is of special value as a "sweetener" for mixing with other lower-grade ores. It is also suitable for use as open-hearth charge ore. Because mine operators in the Lake Superior district have been finding it increasingly difficult to secure ores with a sufficiently low silica content, the value of the Steep Rock discovery was readily apparent and great effort was put forth to develop the mines and suitable shipping facilities as quickly as possible.

The work of providing adequate ship-

ping facilities required the construction of a spur track about four miles long, extending from the mine to the C. N. R. main line at Atikokan; sufficient yard tracks at the mines; improvement of the main line between Atikokan and Port Arthur; and the construction of yard tracks and an ore dock at Port Arthur. This work was done by the Canadian National, acting as agents for the Canadian government, at a cost of more than \$2,500,000. As an indication of the speed with which the work was put under way, the ore prospecting was completed in July, 1943, and by December of the same year preliminary surveys and investigations had been completed by the railway in regard to the type and location of the ore dock to be constructed.

Preliminary Planning

The dock facilities were planned to meet the following conditions: To handle an annual volume of 2,000,000 long tons of iron ore with provision for later expansion, if needed; to afford minimum bin storage of 30,000 long tons of ore; to permit mixing the graded ore as it is

unloaded into the bins and into boats; and to permit rapid loading of boats. To accomplish these objectives, a study was made of various types of docks and it was concluded that a high-level, pocket-type ore dock, similar to those at Duluth, Minn., and Superior, Wis., would be most suitable and economical if more than 1,000,000 tons of ore were shipped per year.

Once the type of dock had been determined, the next problem was to select a site which would satisfy a number of conditions. In the first place, good foundation conditions were required because the loads to be carried were heavy. Secondly, ready access to C. N. R. trackage and yards was needed, which would not interfere with existing traffic, particularly the heavy grain movement following the harvest season. Navigation facilities, access for boats to both sides of the dock, and future expansion possibilities also were considerations.

At the site finally selected, solid rock is located about 35 to 40 ft. below the water level, and the lake bottom above the rock is silt and gravel, which could be dredged to provide slips along both sides of the dock. The other conditions

were also met satisfactorily. The location had only one disadvantage—it required a long, high approach trestle through the center of Port Arthur, just west of the business section. However, very few buildings were in existence on the right of way required to reach the site, and street crossings could be made overhead. Construction called for a dock and approach trestle slightly less than one mile long, an ore spur about $2\frac{1}{2}$ miles long, and two storage tracks, each about $\frac{1}{2}$ mile long, located about $\frac{1}{2}$ mile from the inshore end of the approach trestle.

The Ore Dock

The pocket section of the Port Arthur dock is a monolithic reinforced concrete structure. This part of the dock, which required about 19,000 cu. yd. of concrete, is supported on timber piles. It has 100 pockets, 50 on a side, each of which holds 300 tons of ore.

In general design, the structure is similar to the high-level, pocket-type ore docks at Duluth and Superior. The pocket structure has a length of 600 ft., a height of 82 ft. 6 in. from mean low water to the base of rail on the dock, and an overall width of 64 ft. 8 in. Mooring docks extend 54 ft. offshore and 200 ft. inshore from the pocket section, to provide an overall mooring length of 854 ft. on each side.

The foundation consists of 4,700 timber piles, jetted and driven to solid rock and cut off at mean low-water level. Batter piles driven on six-foot centers along each side afford increased stability. On both sides and at the ends, the dock area is enclosed by a sheet-pile wall of 10-in. Wakefield timber piles 34 ft. long, which were cut off one foot

above low-water level. Twenty feet beyond the corners of the outshore dock section, two pile clusters of 30 piles each were driven to protect the dock.

Two timber wales and 12-in. channels were bolted to the sheet-pile wall at the top. Tie rods $1\frac{1}{2}$ in. in diameter, and extending across the full width of the dock, were placed on 6-ft. centers and were bolted to the timber wales and channels. The foundation area was filled with sand to a height 2 in. below the pile cut-off level, the sand being dredged from alongside the dock. On top of the sand revetment a reinforced concrete mattress two feet thick was poured monolithic with the dock walls and encasing the tie rods. The mattress is divided into two longitudinal sections, tied together at intervals with concrete cross slabs 2 ft. thick.

The ore bins are supported on reinforced concrete columns poured monolithic with pedestal footings and with the mooring dock walls and mattress. These columns are 9 ft. wide and 2 ft. 9 in. thick, spaced 12 ft. center to center along both sides of the dock, and so located as to be under the approximate center of gravity of each bin load. The corresponding columns on opposite sides of the dock are tied together at the bottoms of the bin pockets by reinforced concrete struts, and similar struts are employed to tie together adjacent columns longitudinally at their mid-height.

Bin Design

The pockets of the dock are on 12-ft. centers along both sides to match the 24-ft. length (coupled) of the ore cars and the 24-ft. spacing of hatches on the ore boats. Each car dumps into two pockets and the boats load from alternate

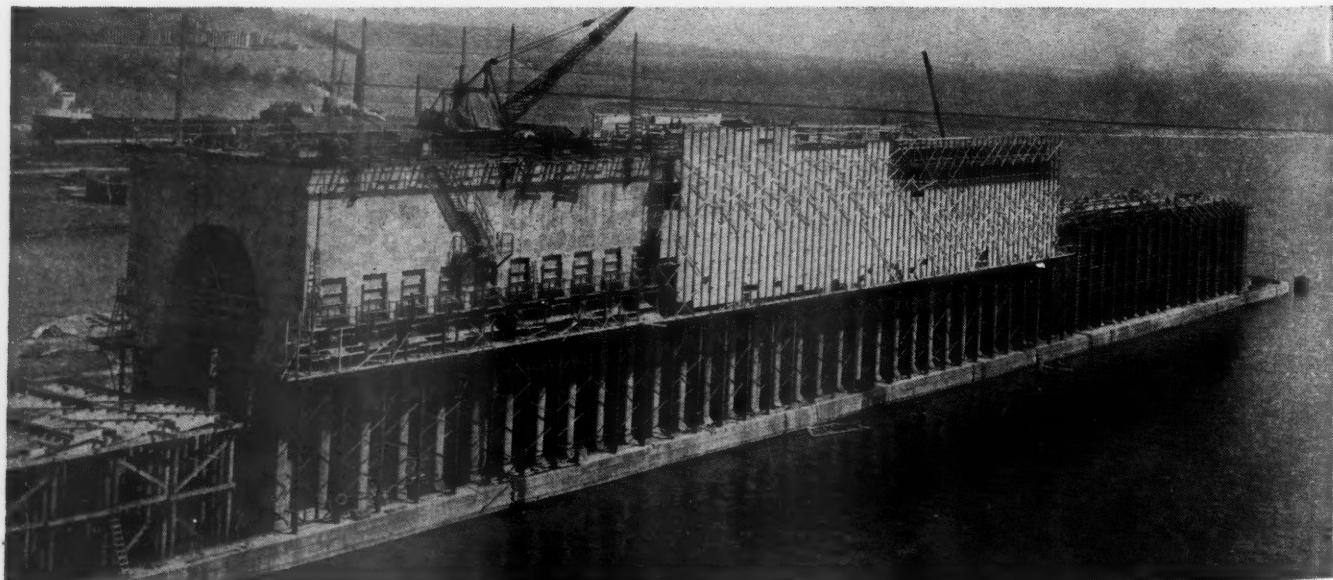
pockets at one time. The dock is served by four tracks, two over each row of pockets.

Four transverse expansion joints, each one inch wide, divide the pocket section of the dock into five groups of 20 bins, each 120 ft. long. The faces of the expansion joints have matching recesses, with corners of steel plates and angles anchored in the concrete. The metal surfaces of the expansion joints were coated with warm tallow when erected in the forms, and a one-inch thickness of plastic material was used to fill all joints not protected by steel plates, to prevent ore dust from getting into the expansion space.

The bins are rectangular in cross section at the top and are formed by transverse walls 16-in. thick, extending between the outside wall of the dock and a center wall, making their inside width 10 ft. 8 in. They have a depth of 37 ft. at the outside, and a depth of $5\frac{1}{2}$ ft. at the center line of the dock, where they are separated from the bins on the other side of the dock by a 12-in. wall. The bottoms of the bins have a slope of $47\frac{1}{2}$ deg. from the horizontal and consist of a continuous concrete slab 14-in. thick at the top and 20 in. thick at the lower end. At the tops of the cross walls, midway between adjacent unloading tracks, concrete beams serve both as ties and struts between adjacent cross walls. The intersections of all walls and slabs are filleted to facilitate the flow of ore and to take care of corner stresses.

Gates and Chutes

The ore is discharged from the pockets through steel-framed gate openings in the outside walls of the dock at the lower end of each pocket. These gate openings are 7 ft. wide and 5 ft. 4 in.



A close-up of the pocket section, taken in April, 1945, showing three stages of construction

high, and are equipped with steel gates, which are raised and lowered by small power hoists, controlled from above. The gates are locked in the closed position by a forged U-shaped bar, attached to each gate, which rests on two dogs on the sides of the frame, and which can be released from above by a lever mechanism when the gates are to be raised.

Below each gate is an ore chute 36 ft. long, 7 ft. wide at the top and 4 ft. 10 in. wide at the bottom. These chutes are of steel plate curved upward along the sides and stiffened by angles and channels. They are also lifted and lowered by separate hoists, operated from above.

On top of the dock, on a working deck along each side, are mounted the hoisting machines, controls, etc. There is a hoist machine for each pocket, and each group of ten hoists is driven from one line-shaft by a 25-hp. motor through a gear-reducer. Each hoist has two drums, one for the gate and the other for the chute, and each drum has a separate friction clutch for raising the load, and a separate brake for controlling the lowering of the load by gravity. Any number of chutes or gates can be operated at one time and two men can handle the entire work for one boat.

Each of the four railway tracks on the dock has room over the pockets for 25 carloads of ore. The track rails are supported directly on I-beams, one I-beam being located directly under each rail and supported on bearing plates on the transverse walls of the pockets. The

space between the rails of each track is entirely free of cross-bracing to permit unobstructed dumping of the ore to the pockets. The tracks extend a sufficient distance beyond the offshore end of the concrete dock on three bents of timber trestle to permit full use of the end pockets without difficulty in spotting cars or switching.

Stairways for access to the track level and the working deck of the dock are located at each end of the pocket section. Stairways, ladders and walkways also provide access from the operating deck to the gates and chutes. Office, locker and wash-room facilities are located near the top of the inshore stairs.

The entire dock, and that portion of the approach trestle where switching takes place, are lighted for night operation. All lights in the track area are directed downward to prevent glare interfering with switching work. Lights are also located inside the pockets and along the walkways, and navigation lights and dock lights are provided at intervals along the full length of the mooring dock.

In the construction of the pier, all the concrete was mixed to a specification calling for minimum strength of 3,000 lb. per sq. in. The dock itself was designed for a live deck load of 125 lb. per sq. ft. and Cooper's E-50 engine load. For structural steel unit stresses, A. R. E. A. specifications for steel railway bridges were used, and a unit stress of 18,000 lb. per sq. in. was specified for the reinforcing steel.

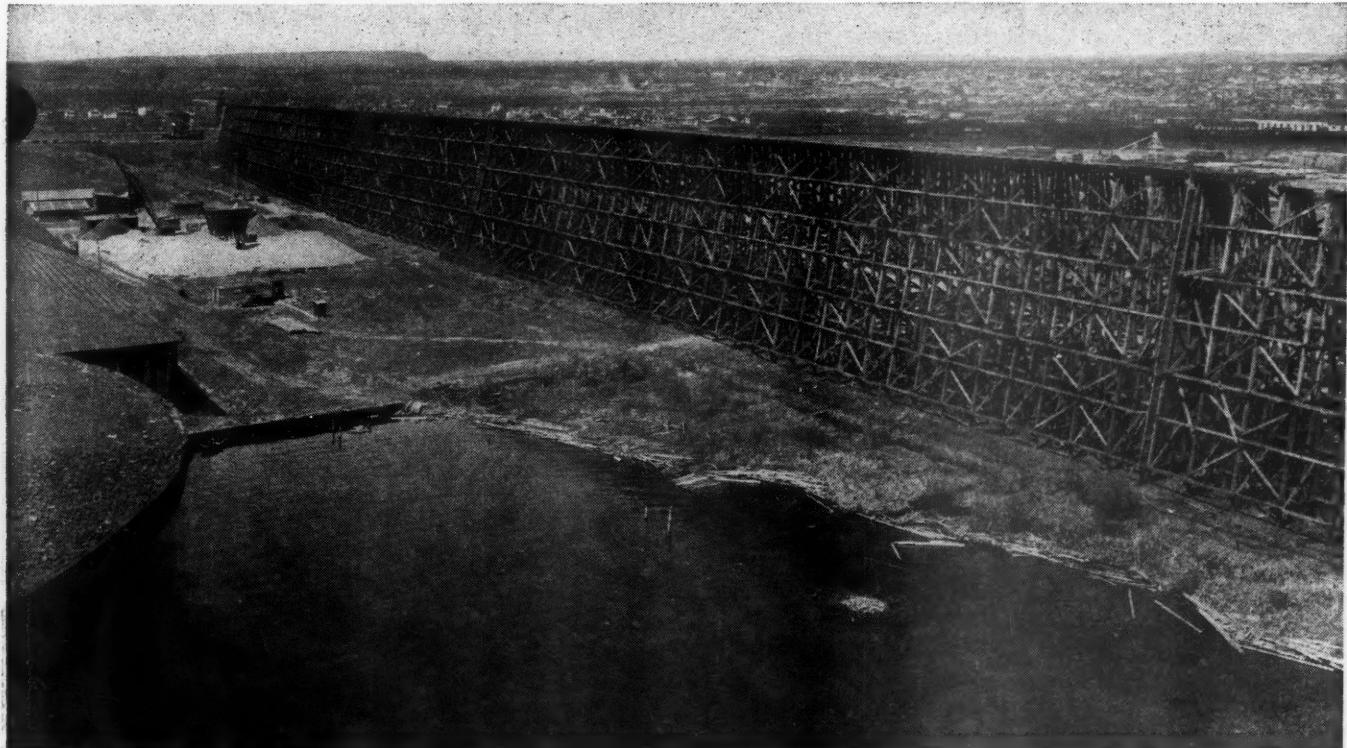
The approach trestle is single track throughout, with the exception of that portion directly adjacent to the pocket section of the dock, where it spreads to a width of four tracks. It is 4,343 ft. long, of which 3,652 ft. is of timber construction, while a total of 691 ft. includes various steel spans for crossings over streets and over Canadian Pacific and Canadian National tracks.

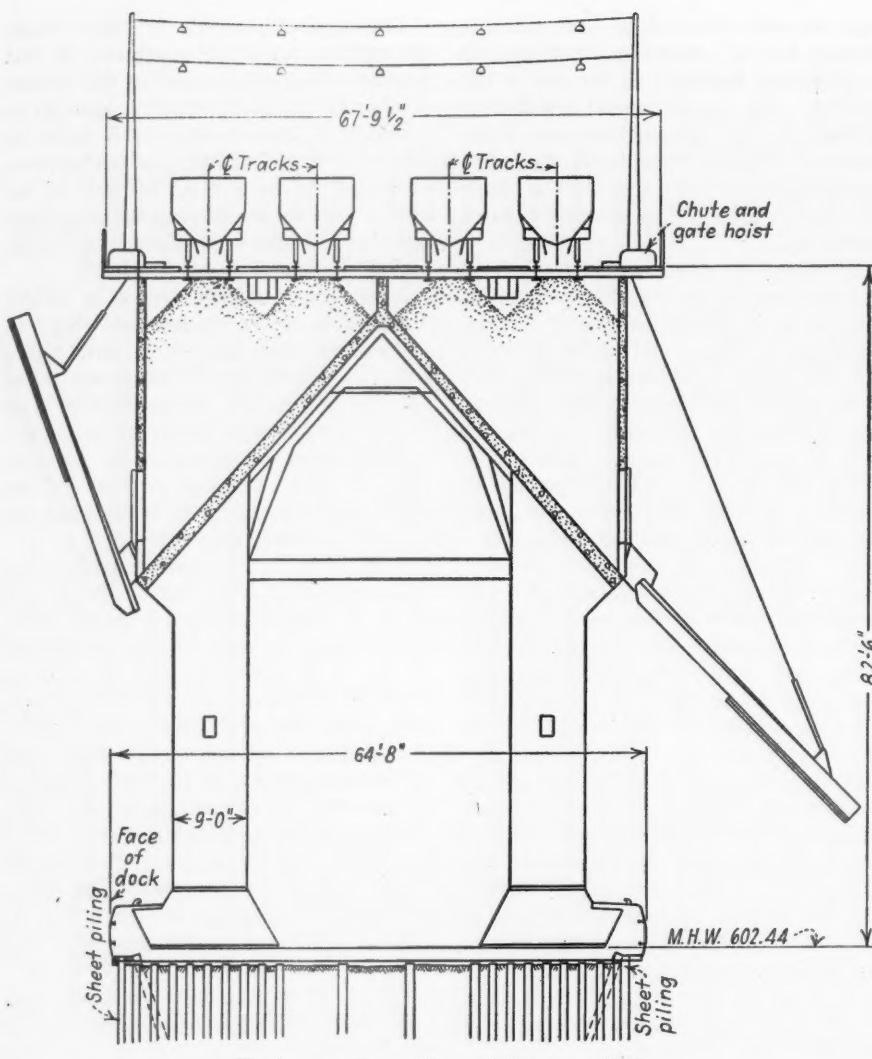
The trestle, which varies in height from 22 ft. at the inshore end to 82 ft. at the dock end, has several interesting features, including the measures taken for fire protection. In general, it is of framed timber-bent construction on untreated cedar and creosoted fir piles, although several bents at the low end are constructed of piles. It is designed for Cooper's E-50 loading.

The bents are of standard design, pre-framed in 24-ft. lifts, with a sill for each 24 ft. of height. They are spaced 13 ft. 9 in. center to center, have an outside batter of 3 in 12, and have standard transverse bracing. For the transverse and longitudinal bracing on both sides, 4-in. timber ring connectors were used, which permitted a 50 per cent reduction in the amount of longitudinal bracing. Briefly, the posts and sills are all 12 in. by 12 in., and the caps are 12-in. by 14-in. timbers. The transverse and longitudinal bracing members are all 3 in. by 10 in., while the longitudinal girts are 6 in. by 10 in.

Most of the single-track bents have six posts, although those more than 48 ft. high have eight posts in the lower

A portion of the approach trestle in May, 1945, when it had been nearly completed. Note the fire walls





Typical cross-section of the ore dock

story, with four vertical posts in the center and two batter posts on each side, each with a batter of 3 in 12. Similarly, most of the single-track bents are supported on six piles, but the higher single-track bents are supported on eight piles.

An interesting feature of the trestle is the fact that it is constructed partially of creosoted timber and partially of untreated timber. All horizontal members are treated and all vertical and diagonal members are untreated.

To protect the foundation piles at cut-off, all of the pile tops were mopped with hot creosote and then coated with asphalt mastic. This treatment was not applied to the ends of the vertical posts because they bear against the creosoted surfaces of the caps and sills. All other points of contact, such as between posts and braces, were protected with a mop coating of creosote oil.

Fire Protection

Four fire walls were constructed and two water mains were installed to protect the approach trestle against fire.

One of the water mains is a dry line and is located on top of the trestle. The other main is located in the ground under the trestle and, while intended primarily to serve the dock, it can also be used for fire fighting. In addition, all timber to a height of five feet above the ground was given two heavy coats of whitewash, a measure which has been found to afford very effective protection against grass or brush fires.

The fire walls are located approximately 500 ft. apart in the high portion of the trestle, and several steel bridges at the lower end also serve as fire breaks. The fire walls are of solid timber construction and extend through the deck to within one inch of the tops of the ties. Each wall is constructed of two layers of 3-in. by 10-in. timbers placed laterally of the trestle, and with the joints in the two layers lapped. As a whole, the wall is supported by 8-in. by 12-in. vertical posts, to which it is securely bolted.

There are three steel bridges in the approach trestle—an 80-ft. skewed deck-plate-girder span, a 41-ft. 6-in. I-beam span, and 569 ft. of tower and girder

viaduct. The steel bridgework was designed for Cooper's E-60 loading, using a basic unit stress of 20,000 lb. per sq. in.

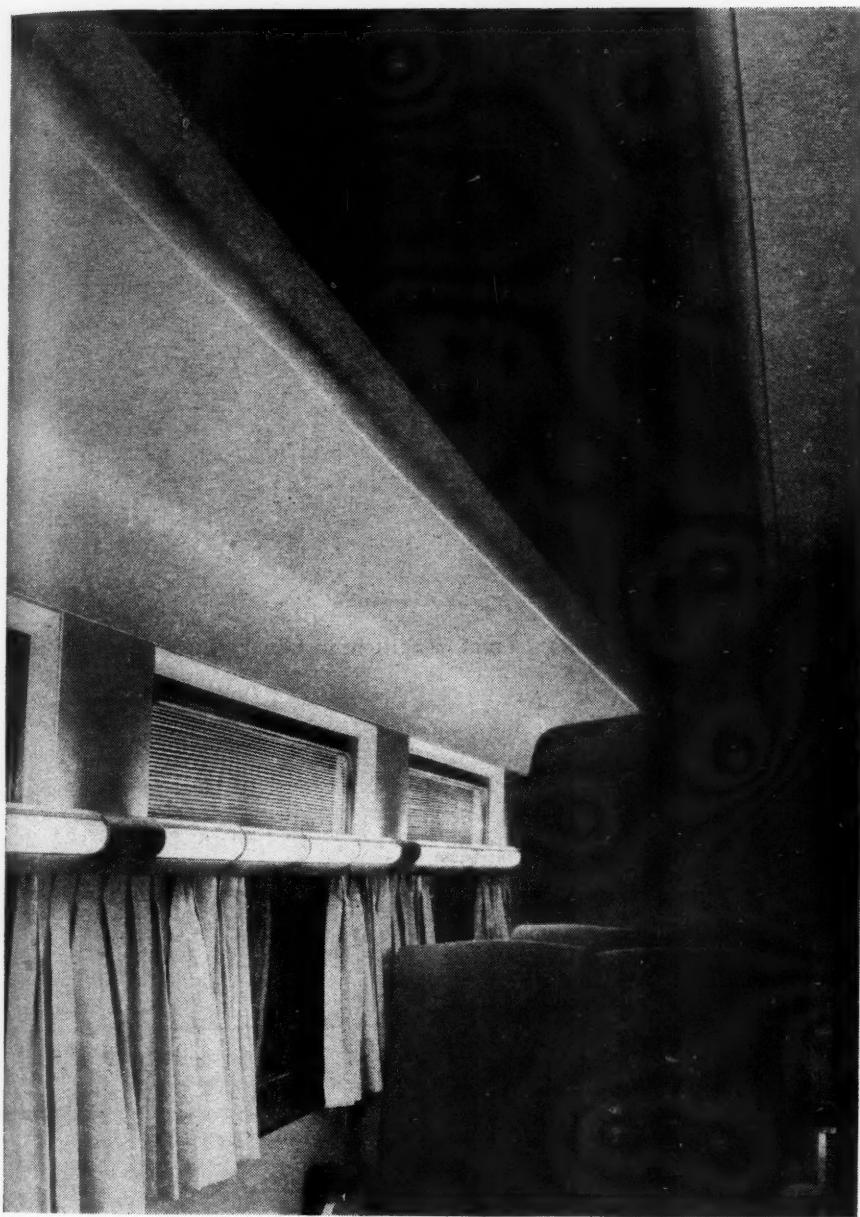
Progress of Construction

Construction of the ore dock foundation was started in April, 1944. The timber foundation piles were driven and about 2,000 lin. ft. of timber revetment was placed in about four months' time. One swing pile driver and one scow pile driver, both with drop hammers, were used in this work. For the concrete work, which began in August, 1944, the sand and gravel were dredged from lake-bottom pits in Lake Superior and were brought on scows to a central screening and mixing plant. Dredging the channels, which are 25 ft. deep and 150 ft. wide, was completed in November, 1944. In July, 1945, the first boat was loaded at the new dock, although construction on the offshore end was not complete at that time.

Operation

At the mine, the ore is crushed, screened, graded into three classifications and loaded into standard, hopper-type ore cars. The ore cars are 24 ft. long and hold approximately 50 tons. The ore is moved from the mines to Neebing yard, just west of Fort William, Ont. From this yard the cars are moved to the storage tracks on the ore dock spur, where they are set out, and where unloaded cars are picked up and returned to Neebing yard. The cars are taken from the storage tracks to the dock and back by a Diesel-electric switch engine, which can push a maximum of 25 loaded cars at a time up the 1.75 per cent approach grade which extends between the storage tracks and the ore dock structure. It was decided to use a Diesel-electric switch engine for the unloading operations because of the high tractive effort of this type of switch engine and also to lessen the fire hazard on the approach trestle.

The design and supervision of this project were under the direction of H. A. Dixon, chief engineer of the Canadian National until his retirement on April 1, 1945. Thereafter the work was carried forward under the direction of Barton Wheelwright, who succeeded Mr. Dixon as chief engineer. The ore dock section was designed by the C. D. Howe Company, Ltd., of Port Arthur, on a consulting basis for the railway company. The foundation work for the ore dock was done under contract by Thunder Bay Harbor Improvements, Ltd., of Port Arthur; the trestle approach and the ore dock superstructure were constructed by Tomlinson Brothers, Ltd., Toronto, Ont.; and the dredging work was done by the Canadian Dredge & Dock Co., Toronto, Ont.



Interior of a mock-up section of a car, showing the lighting effect produced by the fluorescent units

the passengers may have closed all of the window drapes or shades.

The lighting fixtures consist of two continuous units running the length of the car along each side wall at a height of 4 ft. 4 in. above the floor. The section of the lighting fixture at each window consists of a tubular plastic light distributor in which there are two 36-in. 30-watt fluorescent lamps placed end to end. The enclosing plastic is 2 $\frac{5}{8}$ in. in diameter, the sides and lower portion being made of louverplas to shield the passengers' eyes from the light sources and still allow unrestricted passage of the light laterally into the car. The top of the plastic section is clear, allowing the light to be reflected from the under side of the baggage racks 1 ft. 9 in. above the lighting unit.

Illumination on the 33-in. 45 deg. reading plane is 14.5 foot-candles at the center of the window seat and 12.8 foot-candles at the aisle seat. These values were measured with a socket voltage of 105, a reduction which should produce light output about equal to that expected under service conditions.

At the lower edge of the lighting fixture, and constituting a part of the aluminum frame, is a curtain slot for drapes which may be drawn across the sections of the window below the lighting fixture. The curtain track may, if desired, be replaced by a roller curtain box. All wiring and sockets are in the fixture, eliminating the need of conduit or wiring inside the car frame. The sash may be removed without disturbing the lighting fixture.

Night Lights

At the center of each pier panel is a cylindrical metal section which forms a part of the continuous lighting unit. It is the same diameter as the plastic section of the unit and is 9 $\frac{5}{8}$ in. long. Inside each metal section is a 25-watt incandescent lamp which throws light upward through holes punched in the metal section to produce a small fan of reflected light on the panel above the lighting fixture.

The night lights are on a separate circuit, receiving d.c. power from the car battery and since they are independent of the motor-alternator or convertor used to supply the fluorescent lamps, they constitute an emergency light source. If desired they may be operated by an automatic relay which turns them on if the fluorescent lights should fail.

The double glass windows are 5 ft.

Light for Passenger Cars

Designed for coaches, the arrangement provides illumination for reading, night lighting and good day lighting under all weather conditions

THE American Car & Foundry Company has produced a method of lighting passenger coaches which embodies the features of good light distribution, efficiency, simplicity and good appearance. The fluorescent fixtures used

are self-contained, and since they require no conduit in the car frame, they are equally adaptable to new or existing cars. An innovation called Dayflector sash assures adequate and well distributed lighting in the daytime even though

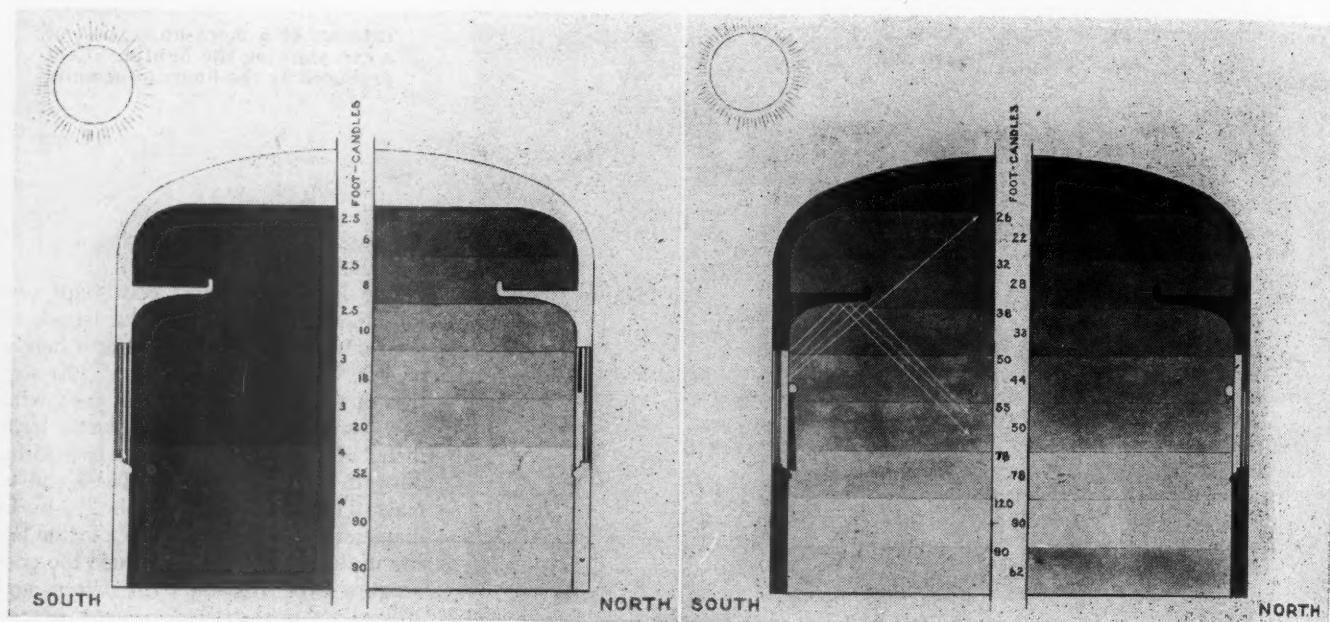


Chart "A" (left):—Light condition in standard coach—Chart "B" (right):—Light condition in slumberliner equipped with Dayflector sash

5,000 foot-candles outside. Readings taken at intervals from floor to ceiling at 1 foot distance

Chart "A"

Light meter facing vertically window at south side and vertically window at north side

Curtain closed on south side. Curtain in normal position on north side

Chart "B"

Drapes closed on south side. Day-
flector sash open on south side.
Drapes open on north side

Dayflector sash open on north side.
Readings taken at same levels as
shown in Chart "A"

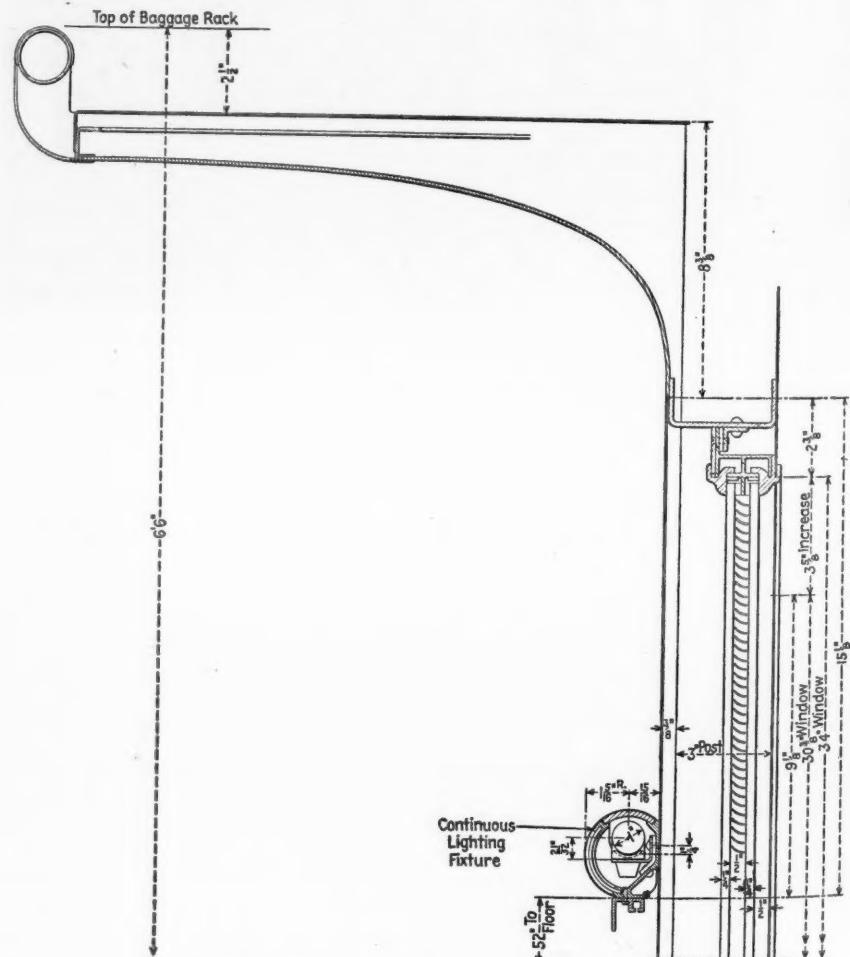
long and 2 ft. 4 $\frac{1}{2}$ in. high within the sash, the portion below the lighting fixtures being clear. Above the lighting fixtures is a section 12 in. high from which is derived the name, Dayflector sash. Between the outer and inner glass are a series of horizontal louvers which reflect daylight from their upper surfaces to the underside of the baggage racks and diffuse light from their lower surfaces into the body of the car. By this means the car is evenly lighted although the drapes are drawn.

Day Lighting

Uniformity of the daylight through the louvers is shown by two sets of measurements taken on vertical planes in the center of the car facing the north and the south side of the car, respectively. The readings were taken at stations one foot apart from the floor to the ceiling. The time was 1:00 p. m. and the outdoor illumination was 5,000 foot-candles. With all drapes drawn, they were as follows:

Stations Feet from Floor	Foot-candles Facing South	Foot-candles Facing North
1	45	13
2	41	18
3	132	21
4	166	26
5	136	28
6	98	28
7	80	30
8	120	28

Under the same conditions, except that the drapes on the north side were open, the intensity readings on the two vertical center planes were as follows:

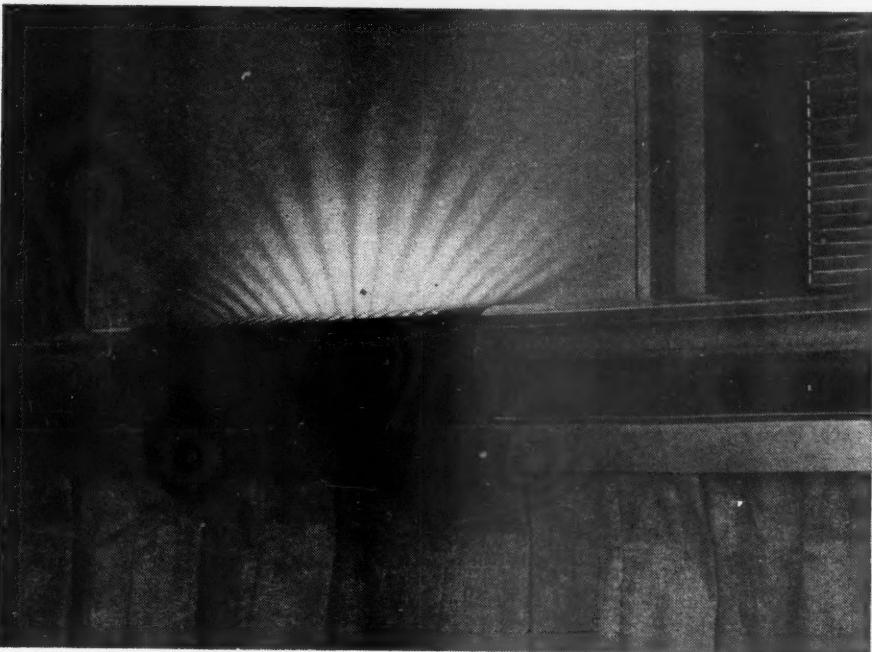


Elevation of one side of a car from the bottom of a window to the top of the baggage rack

Stations Feet from Floor	Foot-candles Facing South	Foot-candles Facing North
1	90	62
2	120	90
3	78	78
4	55	50
5	50	44
6	38	33
7	32	28
8	26	22

The undersides of the baggage racks are used as reflectors for both day and night lighting and since the upper side is in shadow, the frequently disorderly appearance caused by luggage and packages is eliminated. Advantage is also taken of the shadow caused by the bag rack to finish the center strip of the ceiling in a lighter color. Since the lower sides of the baggage racks are bright, they serve to widen the appearance of the interior of the car.

Above right—Close-up showing the Dayflex sash and the arrangement of the night lights and the fluorescent lamps between windows—Below right—One of the night lights as it appears with the fluorescent lights turned off

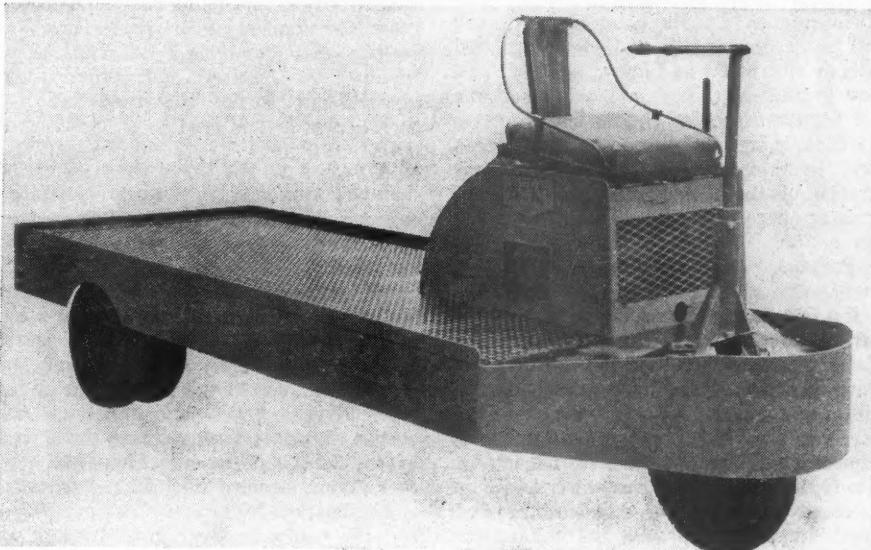


New "Chore Boy"

The Buda Company, Harvey, Ill., has made a recent addition to its "Chore Boy" line of material-handling trucks. The new Model FF Chore Boy is a dual-wheel, platform-type shop truck of one-ton capacity with a large non-skid steel deck which has a loading area of more than 20 sq. ft. It weighs 1,100 lb. and is powered by a 7.7 hp. air-cooled gasoline engine, capable of speeds up to 15 m.p.h. It is said that it will average from 35 to 40 miles per gallon of gasoline. This new Chore Boy is equipped with a simple friction-type transmission with heavy-duty roller chain drive to the rear axle and heavy-duty pneumatic-tired dual wheels are mounted on rear-drive axle and bearings.

A spring-cushioned seat with a form-fitting back rest is provided for the operator and the hinged housing and seat can be thrown open to permit inspection of the power unit and the drive. One of the Chore Boy's important safety features is the hinged seat, which is so designed that the brakes are automatically applied when the seat is vacated, and the truck cannot be operated unless the operator is seated.

A hand lever located adjacent to the driver's seat controls the forward, backward and idling movements. Its one-wheel front steering and narrow overall width of 40 in. make the Chore Boy easy to maneuver through narrow shop and storehouse aisles, up and down ramps and into and out of box cars. The reinforced steel frame is electrically welded and has a rounded front bumper.



New chore boy with dual wheels handles loads up to one-ton

Railroad Press Relations—a Communication

TO THE EDITOR:

SEATTLE

This is an unsolicited commentary on railroad public relations. It's something I've long wanted to say out of a genuine liking and appreciation for the railroad industry, and it is something that must be said and must be understood by a great many persons in that industry before there is any considerable improvement in railroad relations with the press, radio and magazine media, and, through them, with the public.

It is prompted by Robert S. Henry's article in your issue of January 12, "Diagnosis of RR's Public Relations Task." It was a good article of its kind, to be sure; well written and nicely organized. Still I had the feeling that it was scarcely more than a reaffirmation of the need of railroads for better public relations.

Will Local Folks Get the Idea?

I wondered as I read it exactly what it would mean to a roadmaster, a chief dispatcher, a division superintendent or a city passenger agent, and I came to the conclusion that it would mean very little. It told nothing about the very practical business of getting favorable publicity into newspapers, magazines and on the radio for one railroad in particular and for the industry in general.

And until your roadmaster, your chief dispatcher, your division superintendent and others at their level are made to see the desirability of better public relations and until they have been instructed how to improve such relations, there can be very little improvement.

Mr. Henry does say that the job is one for the whole industry. But he leaves it there. I don't doubt for a moment that he personally would know exactly how to interest a magazine editor in an article favoring the industry. I am sure he could talk a city editor into moderating a story about a railroad accident, giving the railroad at least a fair break. And I am quite certain that if he wanted to publicize a faster freight schedule or glamorize a new passenger train, he could arouse a radio commentator. But the point is—he doesn't tell his readers how to do these things, and nobody else, as far as I know, has told them how to do these things; and, as a result, the air transport people, who do know how to do these things and who have developed a very lively interest in publicity in every branch of their service, are stealing the greater share of such publicity throughout the nation.

Perhaps I am beginning to sound presumptuous, and I had better identify myself. For thirteen years I have been a staff writer for the most railroad-minded newspaper on the West Coast, the Seattle Post-Intelligencer. And I have written for national magazines, including the Saturday Evening Post; and among my published stories have been railroad yarns which have found their way into several anthologies. I have never worked for a railroad, I don't work for a railroad now, and I don't pro-

pose to in the future. But in a somewhat restrained way I am a railroad fan. I don't much care whether a locomotive is a Northern or Mountain type, and I am not unduly excited when No. 15 carries an extra sleeper or two, but I am interested in why railroads were built where they were, why some prospered and some languished, and the part they played in the building of the nation.

The P. I. Likes Railroads

I suppose the Post-Intelligencer carries more legitimate railroad stories than any other newspaper of its size in the country, largely because we have built up a wide and friendly acquaintanceship among local railway men and encouraged them to come to us. By that I don't mean we welcome or are vulnerable to "handouts." I don't mean we accept those emasculated, colorless, standardized mimeographed announcements and pronouncements which flow endlessly from railroad publicity offices in far-away headquarters cities to my wastebasket and my city editor's wastebasket. We don't care to take news, official or otherwise, from railroads unless they write us personal letters or telephone us. The little news stories, business and human-interest alike, which we get from general agents and yardmasters and division superintendents whose first names we know, are each worth to us as much as a ton of the mimeographed stuff.

I sometimes think that railroad presidents know less about what their public relations offices are doing than any other department of their railroads. If I were a president I should want my public relations man out on the line fully half of his time, calling on newspapers and radio stations in every sizable town, even at the offices of the smallest weeklies. I would expect him to know managing editors and city editors by their first names, to be liked by them, to be seen by them often enough that they would remember him. I would expect him to educate, and this is the most important thing he could do—I would expect him to educate the company officials in each of these communities in the very practical business of maintaining good relations, of "tipping" these editors and radio stations to legitimate stories concerned with the operation of my railroad.

Handouts a Poor Device

If he sat in an ivory tower, day after day, grinding out handouts, I'd want to know why. He's contributing to nothing but the paper shortage. His opposite number in airline headquarters across the street is putting his feet up on city desks and getting airlines into the papers. If I were a railroad president, and were genuinely interested in improving my public relations, I would inspect my public relations man once a week to determine if any moss were growing on the north side of him. If, however, I had saddled him with advertising and promotion duties as well as publicity—and the two will never mix—I would be

honest enough to admit that the fault had been mine and not his.

The Canadians Do a Better Job

Are there any railroads who do have active traveling public relations men? Yes, a few; but not enough. In the Pacific Northwest we are most impressed with the work of the Canadian railroads. We see in our office here at Seattle much more of the representatives of the Canadian Pacific and the Canadian National than we see of the publicity men of the American roads. They come 150 miles from Vancouver every month or so to jolly us and to remind us that Americans in considerable numbers are traveling by way of Canada. We like the Canadian lines because they seem to like us. And when we call on them for some story, or even for information which is in no manner connected with railroad operation, they never fail us. They are, in a sense, our Canadian correspondents.

I think if I were a railroad president and really wanted a better press and radio I would myself call at newspaper offices and radio stations the next time I took a trip over my line. But I wouldn't appear flanked by my official secretariat; I wouldn't take as much as a single local man along with me. I'd identify myself to the office boy as president of such and such a railroad and when I met the man I wanted to see I would say to him: "Our relations with you have been rotten lately and I want to do something about it. It's been our fault, I am sure. What can we do for you that will improve the situation?" The managing editor or city editor or program director I'm talking to is going to be flattered, and the next time my railroad is in trouble he's going to have a personal interest in my problem; I think he's going to give me a better break.

I would be pleasant to publishers, but I wouldn't spend too much time with them. Except in very small papers, publishers don't sit down at typewriters and write news stories or editorials. They don't edit copy in the early hours of the morning as it comes over the wire. They rarely decide what position will be given in the paper to some story in which I, the railroad president, have a very great interest. If I were about to establish a new train and wanted to make certain it had the best possible publicity break, I would insist that only "working" newspaper men be invited on the first run.

Publicity in Accidents

I have already alluded to railroad accident coverage, and here I want to elaborate. In the handling of accident stories railroads have their greatest opportunity to improve their public relations. Generally throughout the country railroad managements are extremely reluctant to give out details on wrecks where there have been fatalities or injuries, and newspapers and radio stations, working against deadlines, become resentful. That resentment frequently manifests

itself in an overplaying of the accident, harmful both to the railroad and the newspaper. But it's human nature. The reporter works hardest on the story that is denied him, and its importance to him and his superiors is magnified.

We have, in this respect, an almost ideal situation in Seattle. The superintendent of transportation of one of our lines never fails to call us, night or day, on any accident that occurs on the western portion of his line. We receive his reports frequently hours before the wire service stories arrive. Experience has taught us that he always tells us the truth and the whole truth to the best of his ability, and that he never conceals management or employee failure. As a result we have the facts to check against the sensationalized and sometimes highly inaccurate reports which ambitious and imaginative country correspondents often feed to the national wire services.

For his railroad this enlightened policy has meant the difference between being quietly buried on Page 14 among a welter of one-inch advertisements and being played on Page One under an eight-column screamer.

The vice-president of another transcontinental railroad terminating here likewise calls us, day or night, on any accident of whatever nature, and while we appreciate his attention and similarly tone down stories affecting his line, we do often wonder why he hasn't long ago delegated some other official to this duty.

Our third transcontinental line doesn't call us on accidents, but its dispatching office does give us any information we ask for. But because we first hear of mishaps on this line from our news services, and because these dispatches often arrive at deadline, leaving us little time to make a local check, this railroad has had some unhappy experiences.

How Airlines Beat the RR's

Recently I interviewed the president of one of our large railroads and found him in a distinctly depressed state of mind. My paper opened to a page on which there were two pictures and stories about prominent persons arriving and departing from the city on airlines, and, in each instance, the name of the airline appeared in the photograph. He pointed out that one of these celebrities had come to Seattle on his line's best train and he wondered why we hadn't photographed her stepping off the train rather than wait until she had appeared at the airport.

I pointed out that we had not been informed by his company that this young lady, a motion picture actress, was arriving on his train despite the fact that his own city ticket office had spent most of the day previous arranging her airline passage from here. They might have called us, but they didn't. The airline office did, however, call us. On the same day his local freight department had arranged a specially fast run East for a short train of refrigerator cars containing fish and seafood to take advantage of some market break. This would have made a good story for us, tying in, as it did, with a local industry, and it would have enabled us legitimately to dish up a lot of good, old-fashioned romantic railroad lore. But we heard about it three or four

days later, not from the railroad, but from a wholesale fish dealer.

A Publicity-Minded Brakeman

To demonstrate what a little education will do—I once told a brakeman on the Milwaukee to wire me collect if he saw anything out on the road which he thought would make a news story. I knew my man, of course; I was taking no chances. He really had a news sense. A few nights later I got a wire from Eastern Washington that a kitten, half-frozen, had been found on the observation platform of the Olympian by a passenger, that it had been taken into the dining car and fed warm milk and revived, and that the crew would bring it back to the town where it obviously had blundered onto the train. There was a fear that some child in that town was heart-broken.

It wasn't much of a story, really, but it made Page One of the Post-Intelligencer—and, of all things, Page One of the New York Times, because the Associated Press broadcast it throughout the nation. And the New York Times version mentioned the Milwaukee Railway and the Olympian. But to us the most surprising thing about the story was the public reaction—we had dozens of letters from persons commending the Milwaukee Road for its humanity, and that, I submit, is the best possible kind of public relations.

The conductor of a train on another line several years ago delivered a baby one night in a day coach, and did a very nice job of it, too. It was a boy, and the mother, out of gratitude, named the youngster after him. The conductor runs out of here and everyone in the local operating department of that line heard the story and laughed about it. But nobody called us, and only recently did I hear about it. What a priceless opportunity for a first-rate story! If that railroad had been properly alerted to public relations procedure, some station agent, some trick dispatcher, or some employee of the operating department would not have failed to call every newspaper in Seattle. Today, because we have taken the trouble to educate these sources ourselves, such an incident could scarcely pass unnoticed.

Educating Employees

Somebody says at this point that you can't make a newspaperman out of a railroad man overnight. Can't you? Where do newspapers get the great bulk of their news? From "tips," from John Citizen, who has heard or seen something he would like to read in his favorite paper. And John Citizen is more often right than wrong on the subject of newsworthiness. Anything which occurs on a railroad or about a railroad, beyond normal practice or experience, which is of sufficient interest to prompt one employee to tell several others probably has within it the elements of a news story.

As Mr. Henry says, one field into which the railroads very definitely and immediately must step is the juvenile. Several years before the war the Post-Intelligencer arranged with the Great Northern to run a special excursion from Seattle to the international boundary line at Blaine, Wash., for school children who had not previously ever ridden a train. We quoted

a fifty-cent fare for children and a dollar fare for their parents, both roundtrip, for a total run of a little over 200 miles. We thought one, possibly two trains, would fill the demand. In three successive Saturdays we hauled 9,000 children in 11 special trains, and making a careful check on those trains we found that 80 per cent of the riders had never been on a train before.

If the Great Northern made expenses on a fifty-cent fare it did well, but the value of the publicity the railroad received from us—a solid page each week of stories and pictures—and a word-of-mouth publicity it got from youngsters in 9,000 Seattle homes was beyond reckoning.

I believe there are hundreds of newspapers which gladly would cooperate with railroads in joint promotion of school excursions, fan excursions and mystery trips. If traffic conditions relax this summer sufficiently to permit it, we ourselves will sponsor a number of "Know Your State" excursions.

The possibilities of public relations improvement for railroads are limitless once they are taken out of the realm of talk and put into the realm of action; and once management is convinced that the mimeographed handout from headquarters is not the answer, the problem will be well on the way to solution.

DOUGLASS WELCH,
Seattle Post-Intelligencer

[Mr. Welch has written very interestingly and to the point on the railroads' *press* relations, which is an important aspect of the overall job of public relations, but not the whole of it. The railroads might be doing everything that Mr. Welch advocates, and still be failing at a *complete* job of public relations, which embraces not only the carriers' contacts with the press, but with every member of the public. Addressing himself to this larger problem, Mr. Henry naturally did not deal in his article with press relations in the detail undertaken by Mr. Welch. The point, of course, is that if the railroads, generally speaking, have not staffed themselves adequately to deal even with their press relations to a degree commensurate with the need, they are obviously falling even further short of the requirements in the more comprehensive job of public relations in its entirety. A one or two man department isn't big enough to do this job properly—and many railroads do not even have that.—EDITOR.]

Bad Press on Troop Movement

DAVENPORT, IOWA

TO THE EDITOR:

The attached item is from the Des Moines Register of December 30 [relating the anger of 573 Navy veterans, as expressed at a point in Indiana, en route eastward, at their being moved in antiquated coaches, with inadequate water supplies and some windows broken].

This sort of thing won't go far in making friends for the railroads. In fact, it savors of the old-time attitude which alienated so many. And only a short time ago *Railway Age* was saying that "the

riders of today are the shippers and passengers of tomorrow." Still, you cannot force the railroads to see that.

H. Y. CARPENTER

[The railroads appear to have erred in their assumption that the veterans would prefer riding in old cars to not riding at all. In all tasks there are sometimes tough alternatives to face of the kind described as "damned if you do and damned if you don't." We believe the railroads should be pardoned for a mistaken guess, which so obviously arose from a desire to please, rather than from indifference to the veterans' desires. If the railroads have fallen down, it is in neglecting to explain their situation to the veterans—not in any failure to give the armed forces the best they have.—EDITOR.]

NEW BOOKS . . .

Santa Fe: The Railroad That Built an Empire, by James Marshall. 465 pages. 8½ in. by 6 in. Illustrated. Published by Random House, 20 East 57th street, New York 20, N. Y. Price \$3.75.

This volume depicts the almost fabulous history of the building of the Santa Fe—one of the most colorful pioneering feats in the history of the development of the West. James Marshall, a rabid "railroad nut," in addition to being a well-known writer, has created a fascinating, lusty book, which authoritatively and interestingly describes the pushing of the railhead through what was then a wilderness, over mountains and deserts and through seemingly impassable canyons, with constant danger of attacks by Indians. Another hazard was supplied by cowboys, who formed the playful habit of shooting out the headlights of locomotives. In creating a book that reads like a novel, the author has not neglected sound documentary evidence of all his facts and has done an outstanding research job.

He has also described the men whose names are inextricably linked with the development of the Southwest, such as Cyrus K. Holliday, progenitor of the Santa Fe,

and Fred Harvey, caterer to the Santa Fe and its patrons. Bat Masterson, famous marshal of once-wild Dodge City, Kit Carson and Jesse James also appear amid the pages.

The battles between rival railways, the engineering feats performed in driving a railway over and through the backbone of a continent and even the financial problems, all make interesting reading. The land grant problem is dealt with at some length in the book, and the mistaken ideas as to the vast sums realized by railways from land grants are pointed out and disproved.

Slow Train to Yesterday, by Archie Robertson. 189 pages. 8 in. by 5¾ in. Bound in cloth. Published by Houghton Mifflin Company, Boston, Mass. Price \$3.

This author's infectious enthusiasm for riding cabooses and mixed trains and his knack of story telling have gone into a sort of chemical reaction which has resulted in a book. Ostensibly about short line railroads, it could perhaps just as accurately be described as a collection of tales about rural America, its eating and drinking habits, its bowl-and-pitcher hotels, its salty witticisms, and its local trains. Not a few of the anecdotes have a definite smoking-car flavor, but by no means all of them are railroad stories. In fact, with all his affection for Class III and "circular" railroads, the author seems to have an even warmer place in his heart for the whopping fifty-cent pre-war meals served at village inns, and for the conversational exchanges that followed while digestion was progressing.

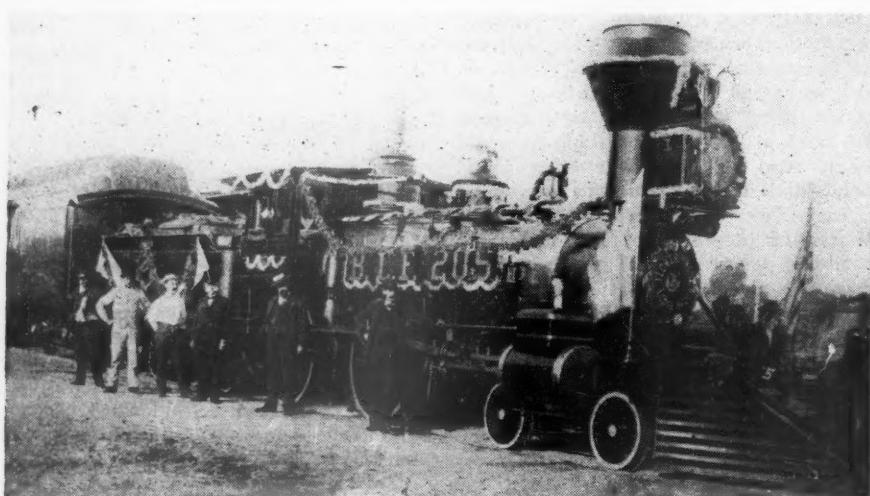
Even though the Official Guide and Interstate Commerce Commission statistics have been quoted as the basis of the author's comments on short line railroads, this book will hardly qualify as a dependable source of precise information on that subject. Granting him the right, for his purposes, to classify the Virginian and the Minneapolis & St. Louis and the Denver & Rio Grande Western in the short line category, since they do operate passenger trains that make "whistle stops," and even

conceding him the privilege of referring to the last-named road in print, as many still do in conversation, as the "D. & R. G.," it doesn't follow that Mr. Robertson is entitled to list the Virginian as the "Virginia," or to leave an "o" out of the Tooele Valley's title; to call the Waynesburg & Washington the "Washington & Waynesboro," or to streamline the name of the road between New Orleans and Vicksburg to "Yazoo Valley."

But the reader who looks more for entertainment than for factual information will find it here in abundance, not only in the local color that pervades the text, but in the highly appropriate sketches by Strobel and in the illustrations that tell more than words of the marginal characteristics of the railroad operations they deal with. Narrow gage lines, interurbans, and true short lines in all sections of the country come in for some gentle "ribbing" and some very understanding discussion.

Ball and Roller-Bearing Engineering. By Arvid Palmgren, Dr. Eng. Published by S.K.F. Industries, Inc., Front street and Erie avenue, Philadelphia 34, Pa. 270 pages, 7 in. by 10 in., illustrated.

The book contains some 900 drawings and tables. It begins with a technical description of common bearing types and continues through nine chapters of fundamental engineering studies. Both radial and thrust bearings are discussed in Chapter I, together with data on dimensional proportions, running accuracy, and tolerances of each type. "Forces and Motions in Bearings," the second chapter, is devoted to theory and calculations on such subjects as the nature of rolling resistance, friction torque, friction coefficients, stresses and deformations, load distribution, motion and inertia. Other chapters deal with studies in carrying capacity of ball and roller bearings, bearing selection, design of bearing applications, mounting and dismounting, lubrication and maintenance and bearing failures. The final chapter is made up of tables, conversion values and a description of symbols and abbreviations. Dr. Palmgren, the author, is in charge of S.K.F. engineering and mechanical research in Sweden. The book is, therefore, a translation and the metric system has been retained, since most of the bearings discussed are internationally standardized in millimeters. For those more familiar with the English system, however, conversion values have been added. The first copies of the book are being sent to the heads of leading corporations, technical schools and colleges, and the larger libraries. Later editions will be sold at cost to students and others interested in bearing studies.



The first train operated between Topeka, Kan., and Leavenworth, on July 29, 1885, over the Santa Fe—Cyrus K. Holliday, known as "the builder of the Santa Fe," appears in a top hat beside the tender

BATTALION TAVERN CARS.—T/Sgt. Otto Schaefer of the 743rd Railway Operating Battalion, in Belgium, recently won a trip to Paris for suggesting the name "Canteen Cup" for "C" company's new tavern car. And, according to the "Yankee Boomer," M. R. S. publication, "A" company, at Stuivenberg station, Antwerp, operates a tavern car called "The Atomic Bar."

GENERAL NEWS

No Surplus of Cars In Early Prospect

Kendall tells Atlantic Board traffic will mount when labor troubles subside

The backlog of returning servicemen on the Pacific Coast, which recently exceeded 100,000, has been cleared, and the railroads are now moving currently all arrivals on both the West and the East Coasts, Warren C. Kendall, chairman of the Car Service Division of the Association of American Railroads, told the Atlantic States Shippers Advisory Board meeting at Philadelphia on January 17.

Declaring that forecasting the future traffic load on the railroads "is particularly difficult at this time due to labor disturbances," Mr. Kendall said: "With restoration of labor conditions to a normal basis, and the reconversion program stepped up to what may reasonably be expected, it may confidently be stated that the freight car supply will be little, if any, in excess of demands, and this applies to all categories."

Needs Being Studied—Mr. Kendall revealed that the railroads are conducting a survey to ascertain the requirements for new freight car equipment. Studies will be made to determine what changes must be considered in types of cars to meet post-war conditions, he stated, and how many such cars will be needed. He also predicted a 4 per cent drop in freight car loadings for the first quarter of 1946 as compared with 1945, caused primarily by decreases in war material shipments; however, in his opinion, the completion of reconversion and the settlement of labor troubles will result in an almost complete utilization of the available car supply.

The election of the following officers was announced at the meeting: Joseph A. Quinlan, vice-president of the St. Regis Paper Co., New York, was reelected president of the board; R. F. Hogan, traffic manager of the Warner Company of Philadelphia, and H. H. Pratt, general traffic manager of the Crucible Steel Company, were elected first and second vice-presidents respectively; R. E. Covey, traffic manager of the Sylvania Industrial Corporation of Fredericksburg, Va., is the new general secretary; and D. R. Crottsley, secretary of the Midtown Warehouse (New York), the sergeant-at-arms.

A Boat for Brown—R. W. Brown, president of the Reading and retiring chairman of the railroad contact committee of the advisory board, thanked board members for their cooperation, which made railroad operation in this war so much more efficient than compulsion made it in

the previous conflict. Most of the efficiency has been gained by using freight cars for hauling freight rather than storing it, Mr. Brown asserted. (A radio discussion by Mr. Brown and other members of the board was reported in the January 19 issue of *Railway Age*, on page 203.)

Clare H. Goodyear, president of the National Association of Shippers Advisory Boards, urged the continuance of all of the O. D. T. and I. C. C. war-time orders now in effect except the two-for-one rule in average demurrage. Since the only cars now in short supply are boxes and refrigerators, which are already protected by penalty demurrage charges, the two-for-one rule was held by Mr. Goodyear to be an unnecessary annoyance. He also urged that the shippers maintain as many of the war efficiency expedients as are adaptable to a competitive situation. In so doing they would be helping themselves as shippers by keeping freight rates down.

Mr. Goodyear announced that a fishing boat would be given to the retiring chairman of the railroad contact committee, Revelle W. Brown, in appreciation of his excellent service during the war.

Expected Trouble, Found None—Col. J. Monroe Johnson, director of the O. D. T. and I. C. C. commissioner, told the assembly that when he first took over the O. D. T. he had expected nothing but trouble in his contacts with the railroads, and was reasonably sure they had expected the same. Much to his surprise, however, the cooperation was excellent between the railroads, other carriers, the shippers, and even the government. He congratulated the railroads on their war job, and said he hoped that the lesson of cooperation they had learned during the war would be used to keep transportation efficient in the future.

Congratulating H. G. Elewell and the other members of the car efficiency committee for their well done job, Mr. Joseph A. Quinlan, president of the board, pointed out that the job was not yet over, though the major problems were in hand. He saw plenty of future work for the legislative, loss & damage, I. C. I., and railroad contact committees.

W. H. Edwards (executive vice-president, L. & N. E.), the new chairman of the railroad contact committee, announced that P. W. Shoemaker, general superintendent of the D. L. & W., had been elected vice-chairman; and five other railroaders had been appointed to the committee. He also listed some of the problems, of car design and availability, freight loss and damage, equipment "degrading" and publishing of I. C. I. car schedules, before the contact committee, with the solutions or suggested solutions.

Port Traffic—George C. Randall, dis-
(Continued on page 249)

N. I. T. League Sets Forth Its Principles

For I. C. C. regulation of all transport; against "social experiment" tactics

To the "three outstanding principles" upon which its position with respect to the national transportation policy has been based, the National Industrial Traffic League has now added a fourth, and on those premises has formulated a statement of its views with respect to five of the main topics as to which Chairman Lea of the House committee on interstate and foreign commerce has invited comment preliminary to a comprehensive survey of post-war transportation problems and possible legislation related thereto.

At the same time the organization has gone on record with the assertion that, "to accomplish the over-all objective of a sound and well-nourished transportation system efficiently and economically managed in the public interest, a single regulatory agency seems essential." This is one phase of the league's response to the Lea "questionnaire, all of which received the "full approval" of the membership at the November 29, 1945, annual meeting in Chicago.

3 Prime Principles—The three principles which "at all times" have been considered by the organization as of "highest importance" in assaying transportation questions, the statement said, are: (1) The continuation of private operation and ownership of the railroads and other agencies of transport; (2) the continuation of the organization and functioning of the Interstate Commerce Commission as an "independent regulatory tribunal reporting only to the Congress"; and (3) that the whole scheme of regulation of carriers shall preserve to the shipping public the proper advantages of each mode of transportation, with full regard to the rights of the owners to a fair return on their properties.

The "further principle" which has now been added is that transportation, as a servant performing a public function, "should not be regarded or treated as a vehicle for social or economic experiments or for refashioning general economic conditions or solving social problems."

Taking up one of the major topics on which the "questionnaire" invited comment, that is, criticism of the national transportation policy as at present set forth by statute, the statement declared that "the criticism that there is no declared national policy with respect to transportation in its relation to the national economy

comes generally from and is greatly stressed by students of economic subjects, rather than either operators or users of transportation. . . . The declared national policy does not require restatement or substantial modification, other than as to air transport and coordination." Any interest or organization or section of the country that desires to have freight rates based on economic conditions not constituting circumstances of transportation now has nowhere to go, the return said; and "this is as it should be."

To the description, in the statement of national transportation policy in the Transportation Act of 1940, of a "national transportation system by water, highway, and rail, as well as other means," there should now be added, said the league's statement, transportation by air. He declared national policy "contemplates equal protection of the law to carriers engaged in all forms of transportation without prejudice or favor among them," a policy which was appraised as difficult if not impossible to execute if "dependent on the varied or conflicting opinions and dispositions of several administrative bodies in place of entire responsibility in one regulatory agency."

I. C. C. May Need Some Reform— While the league statement thus favors centralizing the authority to regulate all transportation in one body, it expresses some concern as to whether rules and restraints for the commission's guidance, "particularly as regards separation of functions," might not properly and advantageously be clarified. Some concern was expressed that the members of the commission might "indulge an increasing tendency of more closely following the recommendations and reports of their own bureaus and investigating staffs, sometimes apparently based on preconceived notions or on economic theories," and some legislative action was suggested to assure that concentration of the functions of prosecutor and judge in one person or one body should not proceed to an objectionable extent. Nevertheless, no specific fundamental change in the commission's organization was proposed, it being the league's position

that that body has demonstrated that it can adjust itself to new problems and enlargements of jurisdiction.

To one point raised in the "questionnaire," that is, how much, if any, power a federal agency should have to promote the activities of carriers, the response was quite emphatic: "The league urges that the Interstate Commerce Commission as a regulatory agency should not be vested with, nor assume, duties promotional in character with respect to any form of transportation."

As to the question whether rate differentials as between different types of carriers are desirable in the public interest or in fairness to one carrier, the response took the position that "government allocation of traffic is completely undesirable; therefore, rate differentials as a device to accomplish such objective are entirely unwarranted. . . . Such differentials defeat the purpose of giving the public the benefit of the inherent advantages of each mode of transport." Where differentials are used merely as convenient methods for stating rates to be charged by various carriers operating under different circumstances, they may be entirely sensible and sound, it was explained; the objection is to the government, by the commission or any other agency, undertaking thus to direct the channels of traffic or to determine what methods of transport shippers or passengers should employ.

Voluntary Mergers—Consolidations among surface carriers on a voluntary basis, subject to approval of the regulatory authority, already are "wisely" provided for by statute, the response went on to say, and "these same principles the league now urges should apply to consolidations as between carriers engaged in different modes of transport;" and "as to integration of the services and facilities of the different types of surface carriers, and as between surface and air carriers, the league supports the same controlling principles," namely, that such action should be encouraged to the extent that it serves to accomplish the objectives of the declared national transportation policy.

The statement discusses the "highly con-

troversial" matter of government "aid" to transportation from the point of view of whether the immediate beneficiaries of transportation facilities created and maintained at public expense make "proper" contribution for the benefits received, thus recognizing that "to the extent no payments—or inadequate payments—are made by the beneficiaries there exists the element of transport subsidy." Such aid as the railroads received during the period of their construction has been repaid, it was noted, and the support which the league gave the repeal of the land-grant rate laws was cited.

As to highway transport, it is the view of the league, as set forth in this statement, that "there is general recognition, although not complete agreement, that motor vehicle users in recent years have contributed a fair share to the cost of providing and maintaining highways; and further progress is being made in that direction."

"Certificates" for Rivers—With respect to waterways "created, improved, and maintained at public expense," it was recommended that Congress should "exercise timely prudence by limitations on the appropriation of public funds," inasmuch as "it is a question of shifting of costs from the beneficiaries of the transportation facilities—carriers and shippers—to the whole body of taxpayers." Moreover, "the league urges that before public funds are appropriated for waterway projects, for which a transportation value is claimed, the Congress, in addition to appropriate findings of the War Department, should have a finding from the Interstate Commerce Commission that there is substantial public need for such additional transportation facilities."

Government aid has been a "major factor" in bringing domestic air transportation to its present stage of development, the statement added, but it is not yet self-supporting. The air carriers, it said, "reasonably can support charges to the users which will cover the economic cost of the service and the placement of it on a self-supporting basis. A main objective of public policy should be to anticipate a self-supporting system of air transportation, both commercial and private, with the beneficiaries paying all of the costs properly attributable to the transportation." In summing up, the organization's policy was set forth as "opposed to subsidy payments to carriers. In promotional periods the federal government has aided transportation from the very beginning, but there comes a point where aid should be suspended and each particular mode should be on a self-sustaining basis."

Support "Barrier" Charge—On the "state barrier" issue the position of the league, as expressed in the response to the House committee "questionnaire," was one of opposition to "any limitations, whether from state or federal statutes, on the free flow of commerce throughout the nation," and implementation of such a policy was advocated through requirements that federal "aid" to states for highway construction be conditioned on acceptance of standardized minimum size, load and speed limits for highway vehicles.

Wage Negotiations Break Down

Wage and working conditions negotiations between the railway unions, the Carriers' Conference Committee and the National Mediation Board seemed headed for the rocks in Chicago this week when the Brotherhood of Railroad Trainmen representatives announced that that organization planned to start the machinery in motion to take a strike vote among its members. The Brotherhood of Locomotive Engineers also broke off negotiations and intimated that a strike vote among members of that organization was likely.

These two brotherhoods have insisted upon negotiating for changes in working rules, as well as for wage increases. The other three operating brotherhoods and the 15 non-operating unions have so far agreed to consider wage increases only

for the present, but, following the breaking off of negotiations by the Engineers and Trainmen, meetings were being held by the representatives of the Order of Railway Conductors, the Brotherhood of Locomotive Firemen & Enginemen and the Switchmen's Union of North America to consider whether or not they, too, would follow the lead of the two recalcitrant operating brotherhoods.

If strike votes are taken and approved by the union memberships, the result, of course, will be the creation of what is officially known as an "emergency" under the Railway Labor Act, and will thus invoke the provisions of that act which direct that a "fact-finding committee" shall be created immediately to take testimony and submit recommendations to the President of the United States.

Taking up finally the matter of government support to the so-called sub-marginal carrier, the league statement took the position that the principle to be applied has been set forth in legislation with respect to railroad abandonments, that is, in case of demonstrated public need, such support as is possible within the limit of the rate structure should be afforded, but "there should be no government subsidies or direct financial payments for the support of such weak or insolvent carrier."

This response to Chairman Lea's invitation for comment on particular topics relevant to the proposed transportation investigation does not cover all of them, it was explained, but only those major matters on which the N. I. T. League has adopted a definite position. The statement was developed by the organization's sub-committee on transportation policy, including W. H. Day, chairman; Charles W. Braden, Alonzo Bennett, F. F. Estes, A. H. Schwietert, Charles R. Seal, and John S. Burchmore (ex officio).

S. P. Plans Two New Streamlined San Francisco-Portland Trains

The Southern Pacific has completed plans for the construction of two new de luxe Diesel-electric powered daylight streamlined trains which will be placed in operation between San Francisco, Cal., and Portland, Ore., and will be known as the "Shasta Daylights." At the same time the road announced a number of important changes in its "Cascades" sleeping trains which also operate between San Francisco and Portland including the addition of three-car dining lounge units and streamlined sleeping cars as soon as they become available.

In connection with the proposed Shasta Daylights the Southern Pacific has already proposed a number of designs to various car building companies, engineers of which will work out the technical details and specifications. As soon as this information is available and bids can be made, orders for the new trains will be placed with delivery asked for by the end of 1946.

Chicago Railroads Promise Smoke Abatement

Representatives of a number of railroads have promised the Chicago city council subcommittee on smoke abatement to adopt plans to reduce the smoke nuisance which recently resulted in three railways being haled into court and assessed fines ranging from one to two hundred dollars.

At a meeting held in Chicago's city hall the subcommittee was told that the railroads had done everything in their power to avoid violating the city's smoke ordinance, but their efforts had been hampered by an inability to obtain Diesel-electric switching engines because of the strike which has completely tied up the Electro-Motive division of the General Motors Corporation.

The subcommittee was also informed that railroads using Chicago yards are conducting a plan of education for locomotive crews on proper firing as a means of reducing smoke until such time as steam engines can be replaced with Diesel-electric units.

The three roads which were charged with

violating the anti-smoke law are the Chicago & North Western, the Chicago, Milwaukee, St. Paul & Pacific and the Pennsylvania. Although offered an opportunity to ask for a continuance, the North Western and the Milwaukee elected to pay fines of \$200 each, while the Pennsylvania accepted Municipal Judge Francis Borelli's stay until March 5 in the belief that further improvements could be made.

Freight Car Loading

Loadings of revenue freight for the week ended January 19 totaled 749,475 cars, the Association of American Railroads announced January 24. This was a decrease of 23,083 cars, or 3.0 per cent below the preceding week, a decrease of 28,097 cars, or 3.6 per cent below the corresponding week last year, and a decrease of 49,175 cars, or 6.2 per cent below the comparable 1944 week.

Loading of revenue freight for the week ended January 12 totaled 772,558 cars, and the summary for that week, as compiled by the Car Service Division, A. A. R., follows:

Revenue Freight Car Loading

For the Week Ended, Saturday, January 12, 1946			
	1946	1945	1944
Eastern	155,302	146,377	153,424
Allegheny	165,941	166,735	172,749
Pocahontas	54,550	54,973	56,785
Southern	119,188	125,102	118,558
Northwestern	91,029	85,889	90,370
Central Western	127,684	130,773	124,093
Southwestern	58,864	73,211	63,552
Total Western Districts	277,577	289,873	278,015
Total All Roads	772,558	783,060	779,531
Commodities			
Grain and grain products	54,453	46,687	57,442
Livestock	18,126	17,922	17,156
Coal	170,032	173,850	183,620
Coke	12,983	13,779	15,463
Forest products	32,840	38,954	37,742
Ore	9,720	11,179	13,404
Merchandise l.c.l.	115,948	100,239	98,891
Miscellaneous	358,456	380,450	355,813
January 12	772,558	783,060	779,531
January 5	652,457	683,398	769,629
December 29	506,151	584,876	
December 22	688,300	762,973	
December 15	771,594	750,242	
Cumulative Total, 2 Weeks	1,425,015	1,466,458	1,549,160

In Canada.—Carloadings for the week ended January 12 totaled 69,476 as compared with 50,700 for the previous week and 65,386 for the corresponding period last year, according to the compilation of the Dominion Bureau of Statistics.

Totals for Canada:	Total Cars Loaded	Total Cars Rec'd from Connections
January 12, 1946	69,476	34,304
January 13, 1945	65,386	32,697
Cumulative Totals for Canada:		
January 12, 1946	120,176	63,078
January 13, 1945	115,629	60,400

L. C. L. Movement at St. Louis Halted by Truck Strike

A strike of truck drivers in the St. Louis, Mo., and East St. Louis, Ill., metropolitan areas halted pick-up and delivery of railroad l. c. l. freight and led to a general embargo, effective January 7, of all l. c. l. traffic destined to St. Louis, Mo., East St. Louis, Ill., and surrounding suburbs. It was also necessary to place embargoes against carload shipments consigned to forwarding companies in the area and against carload shipments requiring team-track delivery, except lumber, bulk materials, and fruits and vege-

tables. As a result of the embargoes against railroad freight, many shippers turned to the Railway Express Agency, which was not hit by the strike, with the result that the express agency on January 21 was forced to place an embargo against inbound shipments of all freight except air express and perishables.

The strike was called by the International Brotherhood of Teamsters & Chauffeurs, an American Federation of Labor union which represents approximately 1,500 truck drivers in the St. Louis area, in an effort to secure an 18-cent hourly wage increase for a 40-hour week. The truck operators had proposed a flat weekly increase of \$3 with a 48-hour work week.

Lea Will Speak at Washington Traffic Club Dinner

Representative Clarence F. Lea, Democrat of California, chairman of the House of Representatives committee on interstate and foreign commerce, will be the speaker at the annual dinner of the Traffic Club of Washington, D. C., to be held at the Mayflower Hotel in that city on February 7.

Electrical Men Will Hold Fall Meeting

The Electrical Section, Mechanical Division, Association of American Railroads, has arranged to hold a three-day meeting in Chicago, October 22-24. The Railway Electric Supply Manufacturers Association will hold a meeting at the same time. The question of exhibits has not as yet been decided by the Manufacturers Association, but the General Committee of the Mechanical Division, A. A. R., has sanctioned the holding of the exposition.

E. G. Budd Sees No Saturation Point in U. S. Travel

Travel is one commodity which has no saturation point, according to Edward G. Budd, president of the Edward G. Budd Manufacturing Company. In an announcement on January 20, he asserted that the post-war demand for travel will provide a natural market for each of the principal means of travel—the railroads, airlines, bus lines, and the private automobile.

"If each of these means of transport adequately develops its own facilities and services, there need not be ruinous competition between any. Railroads are essentially the wholesalers of passenger traffic. Airlines may be regarded as specialists, providing high speed at a price. The bus and the private automobile should largely function as feeders to the railroads and the airplanes. While these fields may overlap, they need not eclipse each other."

Mr. Budd pointed to the greater safety of travel by rail as one of its advantages. He quoted figures released by the National Safety Council showing that the fatalities per hundred million passenger miles were: for railroads, .22; for private automobiles, 3.2; for commercial air transport, 3.9. Another advantage of the railroads is the greater amount of space they can devote to the comfort and the pleasure of the traveler, as compared with airplanes, the private automobile, or the bus.

Evidence that stainless steel streamlined reserved seat trains won the pre-war acceptance of the public is shown, according

to Mr. Budd, by the fact that such equipment paid for itself in from two to four years. This was accomplished at a time when old-fashioned sleeping equipment averaged only 12 passengers per car and old-style coaches averaged only 10 passengers per car.

"For instance," Mr. Budd said, "the Burlington route, first to operate stainless steel passenger cars, had a passenger revenue total of \$10,120,062 from September 1, 1940, to August 31, 1941. Of this amount, Zephyr trains, which were streamlined, represented 9 per cent of Burlington's total equipment and accounted for \$3,678,711 or 36.4 per cent of the railroad's passenger revenue."

"Other evidence of the public's acceptance of the stainless steel streamlined trains is found in traffic surveys made to estimate the railroads' opportunity to serve certain areas. These studies show the extent to which traffic has been attracted to the railroads from the private automobile, where modern railway service has been provided."

1945 Ton-Mile Total 8.2 Per Cent Under 1944

The volume of freight service handled by Class I railroads in 1945 amounted to 677 billion ton-miles, a decrease of 8.2 per cent below the 737 billion reported for 1944, according to preliminary figures made public this week by the Association of American Railroads. Revenue ton-miles performed in December, 1945, totaled 42.5 billion, a decrease of 25.8 per cent below the December, 1944, total of 57.3 billion.

The following table summarizes revenue ton-miles for 1945 and 1944:

	1945	1944	Per cent decrease
First 10 months	584,608,521,000	620,265,575,000	5.7
November	*50,000,000,000	59,554,815,000	16.1
December	*42,500,000,000	57,264,554,000	25.8
Total 12 months	677,000,000,000	737,084,944,000	8.2

* Revised estimate.
† Preliminary estimate.

Great Northern Electrics Will Develop 5,000 Hp.

Two electric locomotives, which will be the world's largest single-cab type, have been ordered by the Great Northern from the General Electric Company for delivery late in 1946. They will be used to augment a fleet of smaller electric locomotives on the 73-mile electrified section of the Great Northern's main line in the Cascades between Wenatchee and Skykomish, Wash.

"Designed and to be built by General Electric at its Erie plant under Great Northern's specifications, these new locomotives

will each be 101 ft. long and equipped with power plants developing 5,000 hp. The weight on the drivers will be 720,000 lb. and they will cost approximately \$500,000 each. Actual manufacture of the locomotives has not yet been started.

December Operating Revenues 18.7 Per Cent Under 1944

From preliminary reports of Class I roads representing 81.2 per cent of total operating revenues, the Association of American Railroads has estimated that the December, 1945, gross amounted to \$498,325,909, a decrease of 18.7 per cent below the \$613,110,810 reported for December, 1944. Estimated December freight revenues were \$325,232,863 compared with 449,738,067, a decrease of 27.7 per cent. Estimated passenger revenues were \$129,762,654 compared with 118,417,410, an increase of 9.6 per cent.

Carl E. Newton Resigns as C. & O. President

On January 22, Carl E. Newton announced his resignation as president of the Chesapeake & Ohio, effective April 23. In a letter of resignation to Robert R. Young, C. & O. board chairman, he stated, in part: "When in December, 1942, I agreed to accept the presidency of the Chesapeake & Ohio in the emergency which then existed in the affairs of the railroad, my law partners consented that I do this because of the war emergency. My former law

view of these facts, I feel that it is now time for me to relinquish the presidency of the Chesapeake & Ohio and return to my profession. I shall accordingly advise the board of my resignation, to become effective at the annual meeting on April 23."

Prior to his election as C. & O. president in December, 1942, Mr. Newton was a member of the New York law firm of Donovan, Leisure, Newton & Lumbard.



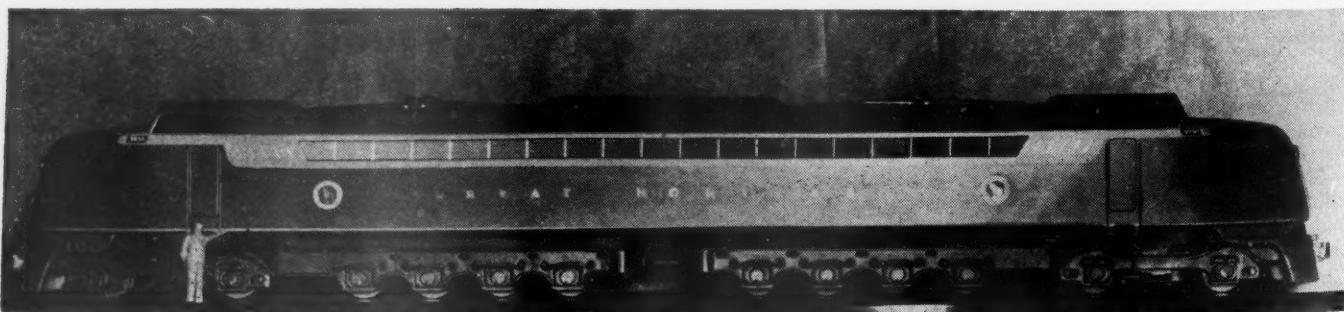
Carl E. Newton

Major General William J. Donovan, who directed the Office of Strategic Services during the war, is head of the firm. In June, 1943, Mr. Newton was appointed by Secretary Ickes to administer the coal mines of the country, which had been seized by the government in the coal crisis of that year. He served on leave from the railroad until the mines were returned to their owners in the fall of 1943.

A. S. T. M. Spring Meeting

The spring meeting of the American Society for Testing Materials will be held at the Hotel William Penn, Pittsburgh, Pa., on February 26 and 27. Features of this meeting will be a symposium on Atmospheric Tests of the Corrosion of Non-Ferrous Metals and Alloys, and several papers relating to statistical quality control of materials. The symposium on corrosion will include the following papers:

"The Corrosion of Rolled Zinc in the Outdoor Atmosphere," by E. A. Anderson, chief of the metals section, research division, the New Jersey Zinc Co.; "The Behavior of Nickel and Monel in Outdoor Atmospheres," by W. A. Wesley, assistant director, research laboratory, International Nickel Co., Inc.; "Resistance of Copper



Model of one of the Great Northern single-cab locomotives

Alloys to Atmospheric Corrosion," by A. W. Tracy, assistant metallurgist, the American Brass Co.; "Use of Lead and Tin Outdoors," by G. O. Hiers, chemist, research laboratories, National Lead Co.; and "The Resistance of Aluminum Base Alloys to Atmospheric Exposure," by E. H. Dix, assistant director of research and chief metallurgist, and R. B. Mears, chief, chemical and metallurgy division, aluminum research laboratories, Aluminum Company of America.

No Surplus of Cars In Early Prospect

(Continued from page 245)

istrict manager of the Car Service Division, reported that, with the cessation of hostilities, the volume of export freight traffic through North Atlantic ports had dropped sharply; though the total for 1945 was only 1.5 per cent less than that for 1944. He added, that although the decrease in North Atlantic ports has varied between 35 and 60 per cent, the decline is almost entirely in military freight. Seventy-five per cent of the freight being handled currently is in box cars, "requiring a large amount of railroad labor, so that with labor very tight, it has been a problem to keep even with the volume in recent months. This situation is somewhat improved at the moment and it is expected that very shortly the situation will be appreciably improved."

The board's freight car efficiency committee reported a general drop in freight car unloading efficiency since the end of the war, with the ratio for December, 1945, 5 per cent lower than for 1944; he attributed this to shorter working time, insufficient labor, and strikes.

J. K. Kiltner, chairman of the legislative committee, reported on the more important bills before Congress which have a relation to the transportation industry. The Bulwinkle bill (removing all question of the legality of the "bureau method" of rate-making), he noted, seems to have been stalled in the Senate Committee on Interstate Commerce by members who feel that no action should be taken before a decision is reached on the Georgia suit (attacking this method of rate-making). He also warned that although no action has been taken on the St. Lawrence Seaway bill, "grapevine" reports indicate that a concerted effort will be made to pass it during this session. Mr. Kiltner advised the board that a separate report would be rendered on the resolution for a transportation investigation.

Hails Activity of Railroads' Development Service

It is "a matter of first importance" to the regions they serve "that developmental services of the railroads are actively on the move now that the war is over." Such was the assertion of Warren T. White, special assistant to receivers of the Seaboard Air Line, addressing the Lions Club at Norfolk, Va., on January 16.

"We clearly recognize the fact," the speaker continued, "that no public utility can be more prosperous than the territory it serves and thus increasing attention is paid by the railroads to strengthening the

over-all economy of those sections served by their line."

Mr. White expressed a belief that the South had special advantages to offer industry because of its "mild climate, abundant raw materials and proximity to great markets." From such premises, coupled with active developmental efforts by the railways of the region, he concluded that "we have here every condition favorable to successful agricultural and industrial growth."

Pointing to the record the railroads made in the movement of war traffic and to the proof they gave of the necessity to the nation of continued efficient railroad service, Mr. White asserted that all forms of transportation should be given equality of conditions so that purchasers of transportation would not be hindered in making an economically accurate selection among them, choosing the agency in every case with the inherent characteristics best fitting it to perform the job at hand.

I. C. C. Classification of Water Carriers

The Interstate Commerce Commission has issued an order providing that water carriers subject to the Interstate Commerce Act shall be classified for reporting purposes into three general classes as follows: Class A, carriers having annual operating revenues exceeding \$500,000; Class B, carriers having annual operating revenues exceeding \$100,000 but not more than \$500,000; and Class C, carriers having operating revenues of \$100,000 or less.

The order provides generally that the amount of the annual revenues of a carrier for purposes of the classification shall be based on the average revenues of three years. In issuing the order the commission

vacated its previous order with respect to the matter which was issued January 19, 1942.

Emergency Board to Investigate Dispute on I. H. B.

President Truman on January 23 appointed an emergency board to investigate the dispute between the Indiana Harbor Belt and its employees represented by the Brotherhood of Railroad Trainmen. The brotherhood had called a strike for the night of the 23rd. The dispute involves some 15 claims relating to matters ordinarily handled by the National Railroad Adjustment Board.

The dispute of the B. of R. T. with the I. H. B. involves claims to compensation based upon interpretation of the working rules, some of which are pending before the National Railroad Adjustment Board—which, in turn, has been slowed down in its action on cases before it by the Supreme Court in the Elgin, Joliet & Eastern case, which raised considerable question of the competency of a labor organization to accept a settlement of disputed claims, making the settlement binding on individual claimants.

The B. of R. T. on the I. H. B. has, apparently, taken the position that it wants payment of its claims forthwith—and is unwilling to await their adjudication by means of the machinery provided by law which, admittedly, is not functioning with either ease or celerity.

A list of current publications of interest to the transportation industry will be found on page 266.



Vermont Railroads Association in Annual Meeting

The annual meeting of the Vermont State Railroads Association was held at the Windsor Hotel, Montreal, on January 12. From left, standing: J. Raymond Hoover, Washington counsel for C. V. and C. N. R.; E. D. Cotterell, vice-president, C. P. R.; M. E. Barnes, assistant general manager, C. V.; A. F. Sortwell, president, Barre & Chelsea; H. M. Irwin, assistant to president, D. & H.; E. S. Miller, assistant general counsel, Mc. C.; Roy G. Finch, of Albany, N. Y., consulting engineer, D. & H.; F. C. S. Evans, general solicitor, C. P. R.

Seated: R. J. Fletcher, commerce counsel, B. & M. (nearest camera); L. F. Whittemore, assistant to president, B. & M.; Mrs. Virginia Brown, secretary, C. V.; H. H. Powers, president of the association and general attorney, C. V. and C. N. R.'s U. S. lines; Stanley C. Wilson, attorney, B. & M.; Clarence C. Cleveland, executive secretary of the association; W. E. Navin, trustee, Rutland; and Wallace M. Fay, president, Clarendon & Pittsford.

With the Government Agencies

Bureau of Safety Reviews Fiscal '45

Winter weather had unfavorable effect on hours of service conditions, it reports

A further substantial increase over 1944 and previous years in the number of instances where railroads reported employees working excess hours of service was noted in the annual report for the fiscal year ended June 30, 1945, of S. N. Mills, director of the Bureau of Safety of the Interstate Commerce Commission. The report, which went to Congress last week, is a 36-page document setting forth in the usual form the results of inspection of safety-appliance equipment on railroads together with information on hours of service records of employees, installations of signaling facilities, investigations of accidents, and other activities of the bureau.

The year under review brought reports of 146,004 instances of all classes of excess service by employees, including 63,076 instances of excess service by train-service employees subject to the 16-hour provision of the law, and 82,928 instances of excess service by operators and other employees subject to the 9-hour and 13-hour provisions of the law. The total compares with 86,891 instances reported for the previous year, or an increase of 59,113.

Cause of Long Hours—Marking a sharp departure from the situation prevailing in the year ended June 30, 1944, when "wartime measures and conditions" were given as the reason for the largest number of instances of excess service among train-service employees, or 10,034 cases, there were only 555 cases so accounted for in the fiscal year 1945, although the total number of instances of all kinds among train-service employees was more than double the 1944 total. This increase in excess service among train and engine service employees, the report stated, "was caused primarily by the cumulative effect of manpower shortage, increased volume of military traffic and severity of the winter, both as to low temperatures and abnormally heavy and continued snowfall. . . . Sixty-six per cent of all service reported in excess of 16 consecutive hours occurred on the lines of two eastern railroads, which handle large volume of war traffic, during the months of January and February." In addition to "landslides, high water, fire, and adverse weather conditions," held responsible for 21,478 cases of excess service among train-service employees in 1945 (compared to 1,097 in 1944), the principal reasons assigned for such conditions were "congestion of traffic" (15,099 cases as compared to

359 in 1944), and "engine delays except mechanical defects" (8,002 cases as compared to 4,922 in 1944 and 541 in 1943).

Among the operators and other employees subject to the 9-hour and 13-hour provision, the principal causes of excess service in 1945, as in previous years, was "sickness, death, and personal injury," which accounted for 65,806 cases, an increase of 15,955 over the 1944 figure.

Defective Rolling Stock—During the fiscal year a total of 1,462,186 cars and locomotives were inspected, and 46,662 or 3.19 percent were found defective. This is the highest percentage of defective equipment noted during the 1936-1945 decade, exceeding 1944's 3.03 per cent. The percentage for 1942 was 2.82 and the low for the 10-year period was 2.31 per cent in 1937. Included in the rolling stock inspected in 1945 were 30,198 passenger-train cars, of which 950 or 3.15 per cent were reported with defective safety appliances, with 1,269 defects noted.

Air-brake tests were made on 3,457 trains, consisting of 151,185 cars, prepared for departure from terminals; and air brakes were found operative on 151,041, or 99.9 per cent of these cars. This percentage was attained, however, the report noted, after 1,851 cars having defective brakes were set out and repairs had been made to the brakes on 1,684 cars remaining in the trains. As in previous years, the bureau comments as follows: "These trains had been prepared for departure; yet when afterward tested by our inspectors it was necessary to set out or to repair the brakes on an average of one car per train."

Similar tests on 1,836 trains arriving at terminals with 97,356 cars showed that the air brakes were operative on 95,388 cars, or 98.0 per cent of the total. Cars with inoperative brakes averaged about one per train, the average consist per train arriving being 53.0 cars.

AB Brakes—Commenting on the program for equipping cars with AB brakes, the report notes that the year brought an increase of 180,038 in the number of cars thus fitted—55,859 of them being new cars. It emphasizes that during the 10-year period allotted for making this improvement, which expired January 1, 1945, only 53.4 per cent of the freight cars in interchange service have been equipped with the present standard air-brake apparatus. Adopting substantially the same specifications, the commission required brake installations in conformity on all cars used in freight service, except those equipped with passenger-car brakes, in its order of May 30, 1945, and the report remarks that a show cause order had been served on the railroads before the end of fiscal 1945, requiring information as a basis for prescribing the time within which that installation must be completed.

(Continued on page 254)

House Gets I. C. C. Appropriation Bill

It provides \$9,546,000 for the next fiscal year ending June 30, 1947

Appropriations totaling \$9,546,000 to cover Interstate Commerce Commission activities during the fiscal year ending June 30, 1947, are provided in the Independent Offices Appropriation Bill which was reported to the House of Representatives from its committee on appropriations on January 22. Because the committee had held hearing on the prospective budget estimates in December, the bill came to the House only one day after it had formally received those budget estimates along with President Truman's annual message.

Did Cut I. C. C. Much—The \$9,546,000 allowed by the committee is \$244,000 less than the \$9,790,000 recommended by the Bureau of the Budget but it is \$532,830 more than I. C. C. appropriations for the current fiscal year ending June 30, 1946, including deficiency appropriations and additional funds provided to take care of salary adjustments awarded federal government employees last year.

A new feature of the I. C. C. appropriation is the reduction in the number of separate items for which appropriations are made. The former separate appropriations for regulating accounts, valuation of property of carriers, and motor transport regulation are merged into the "general expenses" item which thus becomes \$8,000,000 of the total. Another merger is the lumping of the former "safety of employees" and "signal safety systems" items into a single appropriation of \$812,000 for "railroad safety." Classified the same as in previous years are the following items along with amounts provided for them in the bill as reported: Locomotive inspection: \$535,000; printing and binding, \$175,000; cost of handling penalty mail, \$24,000. No fiscal 1947 appropriation is proposed for emergency car service work for which the commission got \$231,000 during the current fiscal year.

With the reporting of the bill, the House committee made public the record of the December hearings with respect to the appropriations which were held before one of its subcommittees. The I. C. C. presentation at those hearings was made by Commissioners Rogers (then chairman of the commission), Aitchison, Mahaffie, Aldredge, Miller, and Johnson, and Secretary Bartel.

Way-Bill Study—Making a brief opening statement, Commissioner Mahaffie identified the way-bill study under way in the Bureau of Transport Economics and

Statistics as the largest single "new activity" for which the commission was seeking funds. Later on that study was discussed in some detail by Commissioner Aitchison who said it was "immediately connected" with the commission's work on the general class rate and consolidated classification cases—Nos. 28300 and 28310.

"It will be recalled," he went on, "that we have made an interim adjustment, and as soon as the classification is prepared and approved, and we can make necessary adjustments of the permanent scale indicated by the record as proper, we will require a new general basis of rates, country-wide, east of the Rocky Mountain. . . . When we come to make these permanent class rates, it is absolutely essential that we know the kind of traffic to which the rates are to be applied, where it is moving from, and to what points it is moving, as well as the total revenues involved, and the distances of movements, inasmuch as the class scales are all based on distances. In order to get that information accurately, we have set up . . . a unit in the Cost Accounting Section of the Bureau of Transport Economics and Statistics, and also a small unit in the Bureau of Traffic.

The section in the Bureau of Transport Economics and Statistics will attend to the general working up of the data and its analysis. The Bureau of Traffic, however, will have the task of supplying necessary rate information, computation of mileages, and so forth, so that these waybill samples which we are taking from the carriers of the country, properly assembled and analyzed, can give us a complete picture of the movement of freight in carloads and less-than-carloads in the United States.

"We consider, if we are going to make full use of the extremely great amount of work which was done in the class-rate case, that we must have this information. If we do not supply it, it is likely to be supplied in some form by the carriers without our check. I do not consider it is in the public interest that the carriers should be expected to supply such vital evidence, which neither the shippers, nor the states, nor the federal commission will be in a position to check."

Expects More Work—The presentation generally stressed the commission's expectations that its work load will increase materially now that the war has ended. It anticipates that shippers will become more rate conscious and carriers more competitive. Meanwhile, Commissioner Splawn pointed out that commission appropriations were lowered as its work fell off during the war, while Commissioner Johnson told how he is rapidly winding up the affairs of the Office of Defense Transportation of which he is director.

The appearance of the O. D. T. director suggested questions about railroad service; and he told the subcommittee that he expects the freight situation to be "very difficult" for "a year, and perhaps longer." Representative Dworshak, Republican of Idaho, said that much railroad equipment has been going to other countries, adding that he had been wondering "when we might expect to try to retain some of this equipment here in our own country." Col-

onel Johnson replied that the export of equipment has been going on "since Pearl Harbor," pointing out, however, that "a great deal of it is military."

"But the war is over," Mr. Dworshak insisted. "We have no particular interest, outside of diplomatic reasons, for trying to divert our own equipment from where it is sorely needed right here in this country, in order to relieve a situation abroad." The O. D. T. director's answer was that "we are not only sending some abroad, I presume, but a large part of our transportation is for coal and wheat and other things that are going abroad now." He added that since the war ended he had not tried to find out what was being shipped abroad.

Reefers Still Tight—Meanwhile Colonel Johnson had predicted that "there will be no relief in the refrigerator-car situation until April or May." With Mr. Dworshak's suggestion that the railroads "have been doing a miraculous job," the O. D. T. director "thoroughly" agreed, but he is still unable to see "how it was done." Commissioner Mahaffie had previously told Representative Hendricks, Democrat of Florida, that the past year's increase in the number of railroad accidents is "surprisingly small if you measure it by traffic units."

The one I. C. C. item which the committee increased above the budget estimate was the appropriation for locomotive inspection, which it raised from \$528,000 to \$535,000, the additional \$7,000 being allowed, as the committee report put it, to "meet an urgent need for funds to pay terminal leave and to lessen a somewhat drastic reduction in travel expense." Secretary Bartel's presentation in support of this item included his submission of a memorandum prepared by John M. Hall, director of the Bureau of Locomotive Inspection; and Representative Case, Republican of South Dakota, said in his subsequent questioning of Mr. Bartel that the Hall memorandum "seems to have had pretty general circulation." Mr. Case conceded that the similar statement which he and, he thinks, several other members of the committee received did not bear Mr. Hall's signature; but he insisted that it did have "many paragraphs and much language" which was "verbatim" with what Mr. Bartel submitted for the record.

Loco Inspection—While he expressed his own view that the proposed appropriation for locomotive inspection "might have a good deal of merit," Mr. Case went on to say that he had been wondering "how statements which officials of the commission apparently prepare for the budget and which are then denied by the Budget Bureau get into general circulation." He thought "there was some provision that employees of the government should not lobby for appropriations." Mr. Bartel knew nothing about the matter, whereupon Commissioner Aitchison explained that the director of the Bureau of Locomotive Inspection is a Presidential appointee, the same as members of the commission, "who are just as independent of him as he is of us with respect to such matters."

Mr. Case was also interested in the development of radio communication between trains, and Commissioner Mahaffie's

comment on that matter called attention to the fact that the commission has added a radio engineer to the staff of its Bureau of Safety. "That bureau," Mr. Mahaffie continued, "is undertaking, as it does on other signal appliances, to check and pass on those installations as they are put in. The first work in connection with it is that of the Federal Communications Commission, however; that is, to allocate and license the use of the wave lengths, and that work also has proceeded a great deal since we were here last year. There has been a great deal of experimentation with radio communication systems in train operation, and there are several quite extensive operations of that character being carried on now."

Railroad Radio—Further comment on railroad radio service came in subsequent sessions of the hearing, when members of the Federal Communications Commission appeared in support of that agency's proposed appropriations. F. C. C. Commissioner Jett explained what has been done in the way of issuing licenses to the railroads, stating that the commission expects to have licensed 2,200 railroad stations by next July 1. Representative Thomas, Democrat of Texas, seemed interested in finding out whether there was anything in the Federal Communications Act which might be construed as giving F. C. C. authority to require railroads to install radio communication systems.

F. C. C. Chairman Porter replied that there was not, adding: "The Association of American Railroads has taken the lead in this thing along with the principal railroads, and they have filed application for this service. Now there is a duty upon the part of the commission and the Interstate Commerce Commission to make recommendations to Congress at some time with respect to compulsory safety legislation, but we have never done it in this particular field."

Surplus Engines for Sale

The War Assets Corporation has offered for sale as surplus property seven standard-gauge steam locomotives, six of 2-8-0 type and one of 0-6-0 type, varying in age from 36 to 45 years and in weight, with tender, from 282,000 to 306,900 lb. Details are available from the Portland, Ore., office of the corporation.

Bars Southeastern Greyhound's Trailways Membership

An application of Southeastern Greyhound Lines for authority to acquire control of three bus operators, Lewisburg Bus Lines, Georgia Stages and Crescent Stages, by purchase for cash in the first case and exchange of stock in the two others, has been denied by Division 4 of the Interstate Commerce Commission, with Commissioner Miller dissenting. The Crescent and Georgia companies are now members of the National Trailways System, which opposed the application.

Trailways is competitive between many points with the nationwide Greyhound bus system, with which Southeastern is affiliated in that it uses the same color scheme and advertising and carries the same name, as well as sharing various terminals

and interchanging traffic, although there is no financial relationship and officers and directors are different. Southeastern had proposed to merge Lewisburg's operations into Crescent's, and planned to develop the facilities and equipment of that carrier and Georgia Stages, according to the application, while retaining their affiliation with Trailways.

Trailways contended that the principal lines of the operators Southeastern seeks to acquire parallel its own north-south lines, and that their acquisition would result in a practical monopoly by Southeastern of long-haul bus transportation in Georgia and Alabama, particularly on traffic between Florida and the Midwest. Its continued operation of these lines under crimson paint instead of grey would be only an "ingenious stratagem," allowing Southeastern to continue its "primary loyalty" to the Greyhound system while becoming a partner in the competitive Trailways, the protestant insisted.

"The monopoly that would result from these acquisitions would not be in the public interest," as Southeastern's purpose is largely "to protect itself from the growing competition of Trailways," the division majority, Commissioners Porter and Maffie, held, although Commissioner Miller would grant the application as "not contrary" to the public interest.

Locomotive Inspection Rules Amended

The Interstate Commerce Commission has further amended its rules and instructions for the inspection and testing of steam locomotives and tenders, by order of Commissioner Patterson issued January 16. These amendments deal with the provision of emergency brake valves at the front of the tender or back cab wall, the provision of cab devices indicating the quantity of water in tender tanks, and arrangements for auxiliary operation of air-operated power reverse gears.

Budget for 1947 Fiscal Year Goes to Congress

Proposed appropriations totaling \$12,765,800 for administrative activities of the Railroad Retirement Board, \$744,800 for the National Mediation Board and National Railroad Adjustment Board, and \$120,686,500 for the War Department to carry on its work of maintaining and improving rivers and harbors are included in the budget for the fiscal year ending June 30, 1947, which went to Congress on January 21 along with President Truman's combined state-of-the-union and budget message. As reported elsewhere in this New Department, the budget also included recommended appropriations for the Interstate Commerce Commission and the Public Works Administration, which were acted upon by the House committee on appropriations when it reported the Independent Offices Appropriation Bill to the House on January 22.

Retirement Board Getting Bigger— The Railroad Retirement Board estimate includes \$2,765,800 for administrative expenses under the Railroad Retirement Act, as compared with \$2,222,000 appropriated for that purpose during the current fiscal year ending June 30, 1946. The \$10,000,000

remainder of the fiscal 1947 estimate for R. R. B. administrative expenses is the amount expected to be made available to the board for administration of the Railroad Unemployment Insurance Act, which provides that 10 per cent of the taxes collected thereunder shall be available for administrative purposes. Funds thus made available for administration of the Railroad Unemployment Insurance Act in the current fiscal year ending June 30, 1946, are put at \$12,000,000.

The budget also contemplates appropriation to the Railroad Retirement Account in the Treasury the estimated total of taxes to be collected in fiscal 1947 under the Carriers Taxing Act—\$298,233,000. Thus the proposed total appropriation for purposes of the Railroad Retirement Act in fiscal 1947 becomes \$300,998,800 as compared with \$294,135,000 for the current fiscal year.

The estimate for the National Mediation Board includes \$331,700 for N. M. B. salaries and expenses, compared with \$243,300 appropriated for the current fiscal year; \$110,000 as compared with \$123,900 for arbitration, emergency, and emergency panel boards; and \$281,400 as compared with \$252,400 for salaries and expenses of the Adjustment Board. In explaining N. M. B. operations the budget said that Railway Labor Act procedures had been in effect since 1926, and had been "successful in avoiding any major nationwide strike until December, 1943, when the director of economic stabilization set aside a recommendation of the emergency boards in two industry-wide wage cases of that year."

More River Work—The \$120,686,500 recommended for the fiscal 1947 rivers and harbors works of the War Department's corps of engineers compares with \$76,528,600 appropriated for that purpose during the current fiscal year. Also, there is on the War Department civil functions list a recommended fiscal 1947 appropriation of \$2,900,000 to cover the federal government's share of the cost of altering bridges over navigable waters. This is in accordance with provisions of the so-called bridge bill enacted in June, 1940, to provide in effect that the government would thereafter pay for costs of altering railroad bridges required to be rebuilt in connection with waterway improvements—except such costs as resulted in benefits to railroads involved.

I. C. C. Analysis of 1943 Motor Carrier Accidents

The Interstate Commerce Commission has made public a report on "Motor Carrier Accidents 1943," which was prepared by members of the staff of its Bureau of Motor Carriers. Although the commission's Division 5 authorized the release of the report, an accompanying notice by Secretary W. P. Bartel points out that "it has not been considered in detail or approved by Division 5 and it is not, therefore, to be construed as an expression of the views of the division."

The report contains information comparable to that for the year 1942 which appeared in the "jointly published" summary for 1941 and 1942 which was

noted briefly in *Railway Age* of March 24, 1945, page 562, and so is less exhaustive than the last report published before the war, which was in 1939. This condition, it was pointed out by W. Y. Blanning, director of the bureau, is attributable to a shortage of personnel. No report was published for 1940. The present study of 44 mimeographed pages is an analysis of the 8,848 accidents "reported to have occurred in 1943." This total represents a decrease from the 9,376 accidents reported in 1942, but the bureau comments that "conditions which have obtained during the war period have prevented the effective enforcement of the accident reporting requirements," so that very limited significance" may be attached to the quantity data in the study.

House Bill Would Give I. C. C. Power to Require Radio

Representative Price, Democrat of Illinois, has introduced H.R. 5162 to give the Interstate Commerce Commission regulatory control over train communications, including power to require railroads to install telegraph, telephone, radio, inductive, or other systems. The bill is like S. 1537 which was introduced sometime ago in the Senate by Chairman Wheeler of the committee on interstate commerce (see *Railway Age* of November 10, 1945, page 764).

Car Service Orders

In order that the handling of refrigerator cars in westbound movement to the Pacific coast may be more flexible and expeditious, the Interstate Commerce Commission has modified the provisions of its Service Order No. 104, under which substitution of such cars for box cars for loading for westbound shipments was prescribed under certain conditions. The modifications are set forth in Corrected Third Revised Service Order No. 104, which provides that carriers *may* make the indicated substitutions (instead of the mandatory requirement previously in effect). This order is effective January 21 through February 21, unless otherwise directed.

Another I. C. C. service order affecting the handling of empty refrigerator cars is No. 436, corrected, effective January 21 through February 15. It provides that empty refrigerator cars must be removed from the place of unloading within 24 hrs. after unloading and placed "without delay" in outbound trains for loading territory, unless other orders of Agent Taylor apply. Where such cars are loaded with l.c.l. freight in the direction of empty movement, or are substituted for box cars under the provisions of Service Order 104 as revised, the provisions of this order do not apply at point of loading, except as to movement from place of unloading.

Service Order No. 68, amended, providing regulations with respect to charges on freight transferred as a result of overloading, minimum weights on transshipped freight, etc., has been continued in effect to June 30 by Amendment No. 11 thereto.

Further action has been taken by the commission with respect to embargoes on outbound l.c.l. freight at certain midwestern points where congestion has resulted from truckers' strikes, resulting in a 4-day prohibition (effective January 19 through 22)

on such freight applying to all railroads and freight forwarders at St. Louis, Mo., and East St. Louis, Ill., and in an embargo applying to the Chicago & North Western and Chicago, St. Paul, Minneapolis & Omaha at Sioux City, Iowa, and South Sioux City, Neb., and to the latter road only at any point in the switching limits of Minneapolis, Minn., St. Paul or Minnesota Transfer, both effective January 18 through 31, unless otherwise directed. Such embargoes on outbound l.c.l. freight do not apply where shipper loading does not involve use of railroad freight houses, but that applying to the Twin Cities (Service Order No. 437) includes l.c.l. freight from the National Carloading Corporation.

In view of a heavy increase in orders for box cars fitted with automobile loading devices at points not affected by strike, the Car Service Division of the Association of American Railroads has advised carriers that temporary permission to load such cars for owner road has been cancelled, leaving in effect instructions requiring that they be returned to loading road by service route when released from load. Loading of cars so equipped when moving empty to loading territory is restricted to such loading as requires the use of the special equipment installed.

Establishment by the commission of super-demurrage charges by means of service orders issued without hearing is within its power to regulate car service whenever an emergency exists, according to a recent ruling of a 3-judge federal district court at Washington, D. C., which thus disposed of efforts of organizations handling fruits and vegetables to obtain a permanent injunction affording relief from the provisions of such service orders.

Sleeper Ban Off March 15

Removal of limitations on the operation of sleeping cars on regular trains has been definitely scheduled by the Office of Defense Transportation through an amendment, issued last week, to its General Order 53. That order, effective July 15, 1945, prohibited the continuance of sleeping car service in runs of 450 miles or less while the peak movement of returning service men has been in progress.

Subject to the ability of the Pullman Company to have the cars available for use, the amendment provides that sleeping car runs of 351 to 450 miles may be restored February 15. It is estimated that 334 cars now assigned to military use will be required to accomplish this restoration of regular service.

On March 1, subject to the same condition, sleeping car runs of 251 to 350 miles may be restored, involving the return to "civilian" operation of an additional 372 cars. On March 15 the ban is removed entirely, permitting sleeping car runs of 250 miles or less to be restored; another 189 cars will be required to accomplish this.

While the complete revocation of these restrictions on sleeping car use contemplates the withdrawal from exclusive military service of the 895 sleeping cars made available when they were instituted, Director J. Monroe Johnson of the O. D. T. explained that conditions have so changed that there will still be available for military use more sleeping cars than were in such use during

the peak movement of December, 1945. This situation results from the delivery of 1,200 troop sleeping cars on government order. While their completion by the manufacturers by the time scheduled, December 31, 1945, was prevented by strikes, 711 of these cars were ready for use January 16, and the entire 1,200 are expected to be in service before March 1.

At the same time, of course, troop movements will decrease in volume during the coming months, as the Army approaches the end of its program for the return of men from overseas.

Likewise effective March 15 will be the removal of the O. D. T. limitation on advance reservation of railroad passenger accommodations. This order—General Order 52—went into effect June 29, 1945, with a prohibition on the sale or allocation of either sleeping car or seat space of any type on passenger trains more than 5 days in advance of scheduled departure time. On September 9 that limitation was changed to 14 days, on which basis it will continue until March 15, when the order will be revoked, leaving the railroads to "make such arrangements as they please" as to the acceptance of advance reservations for passenger space.

Deadline on Applications for Expedited Amortization

February 15 has been set by President Truman as a deadline for the filing of applications for certificates of non-necessity whereby war-connected facilities may be amortized over a shorter period than the five-year term fixed during the war. As noted in the *Railway Age* of October 13, 1945, page 620, the expedited amortization, under which railroads like other industries have become eligible for tax refunds as a result of the recomputed operating expenses involved, was authorized by the President's October 4, 1945, order.

The present order fixing the February 15 deadline was dated January 14. Another deadline—April 15—has been set by the Civilian Production Administration as the last date for the filing of final cost statements with respect to the emergency facilities.

\$267,838,792 for Highways

The Independent Offices Appropriation Bill for the fiscal year ending June 30, 1947, which was reported to the House from its committee on appropriations on January 22 carries \$267,838,792 for the Public Roads Administration. This is \$38,000,000 less than the \$305,838,792 recommended in the budget which President Truman had sent to Congress the previous day, but it is \$159,838,792 more than the \$108,000,000 appropriated for the current fiscal year ending June 30, 1946.

Included in the total approved by the House committee is \$25,000,000 (\$5,000,000 less than the budget estimate) for grade crossing elimination and protection work; \$150,000,000 for federal-aid "post-war highways"; \$50,000,000 for the regular federal-aid highway system; \$20,000,000 for secondary or feeder roads; \$10,515,637 for the "strategic highway network"; \$7,323,155 for "access roads"; and \$5,000,000 for the Inter-American highway.

Labor Shortage—The biggest cut under the budget estimate was the reduction of \$25,000,000 in the amount allowed for federal-aid post-war highways. The committee explained in its report that it was governed in making this cut "by the lack of information available at this time as to just what progress can be made and with what speed this very sizable road-construction program can be launched." The report went on to say that the commissioner of public roads admitted "that the problem of recruiting sufficient labor to carry on these projects presented a most serious difficulty."

At the same time the report gave assurance that "it is not the purpose of the committee to delay the construction of public roads which are in urgent demand but it is believed that the sums recommended will be entirely sufficient to start the program and that additional funds can be secured if and when the need therefor is demonstrated."

With the reporting of the bill the committee made public the record of hearings with respect to the appropriations which were held before one of its subcommittees in December. The P.R.A. there presented in justification of the budget estimates a statement which included the following comment on the proposed appropriation for grade crossing work:

"The Hayden-Carywright Act of June 16, 1936, carried the first authorization exclusively for this work in regular federal-aid legislation. Subsequently, each federal-aid authorization has carried specific provision for the elimination of hazards at grade crossings. The act of September 5, 1940, authorized appropriations of \$20,000,000 for each of the fiscal years 1942 and 1943 for this work, which was the last authorization under this appropriation title. Unlike the federal-aid highway system and secondary or feeder road funds, which must be matched with state funds, these funds are available to pay the full cost of construction without being matched with state funds.

Little Crossing Work—"Because the character of the work involved required the use of steel and other critical materials, the work under this appropriation was drastically curtailed during the war period. During the fiscal year 1945 only 11 railway-highway grade crossings were eliminated and 41 grade crossings protected at a total cost of \$1,870,822. Payments during the fiscal year 1945 for work done by the states amounted to \$3,601,112. As of October 1, 1945, there was an unobligated balance of \$36,272,344 available to the states. As of the same date, 80 projects involving \$5,564,374 of grade-crossing funds were deferred. Work was stopped on 29 of these projects and contract of award was held in abeyance on 51 projects.

"The estimate of \$30,000,000 for the fiscal year 1947 is composed of \$2,300,000, the remainder of the amount authorized for the fiscal year 1941; \$20,000,000, the amount authorized for the fiscal year 1942; and \$7,700,000, a part of the amount authorized for the fiscal year 1943. This appropriation estimate leaves a remainder of \$12,300,000 unappropriated of the 1943 authori-

zation. In view of materials now obtainable which were critical during the war period, it is anticipated that construction will be resumed or started on deferred projects in the very near future and that the pre-war normal highway grade-crossing construction program will be well under way in the next construction season.

Money for Planning—To reimburse the states during the fiscal years 1946 and 1947 for the construction of projects and for the survey and plan program financed from this fund, it is estimated that \$12,000,000 will be required by June 30, 1946, and an additional \$30,000,000 by June 30, 1947, a total of \$42,000,000. Cash carried over on July 1, 1945, from previous appropriations, including the 1946 appropriation of \$6,000,000 amounted to approximately \$12,000,000, all of which it is estimated will be required to make the necessary payments during the fiscal year 1946. The estimate of \$30,000,000 will be needed to liquidate maturing obligations during the 1947 fiscal year."

As indicated above, the House committee cut the budget estimate for grade-crossing work from \$30,000,000 to \$25,000,000. Meanwhile, Thomas MacDonald, commissioner of public roads, had testified that plans for grade-crossing projects were "in preparation or completed" for "in excess of \$38,000,000 estimated construction cost." Mr. MacDonald also stated that the railroads were "very much interested" in the continuation of the grade-crossing program, which had been deferred since 1941.

Bureau of Safety Reviews Fiscal '45

(Continued from page 250)

The bureau has continued its cooperation with the Association of American Railroads with respect to tests of geared hand brakes. No change from the previous year was reported as to types of vertical-wheel geared brakes that have been certified as conforming to A.A.R. requirements, the number remaining 12, but it was noted that two types of horizontal-wheel geared brakes have been certified and final action is pending on others.

As of January 1, 1945, there were 112,530 miles of road (145,635 miles of track) equipped with block signals, including automatic block signals on 68,222 miles of road (99,736 miles of track). On the same date there were 4,387 interlockings in operation, and 10,678 miles of road (20,722 miles of track) were equipped with automatic train-stop, train control, and cab signal devices. The report notes that the commission, acting on "conditions disclosed in connection with the investigation of accidents," has issued orders in certain cases calling upon the railroads involved to show cause why they should not be required to install the block signal system or other safety devices on parts of their lines. During the year, 1,067 applications for approval of modifications of block signal systems and interlockings were filed, including two that involved the installation of inductive train communication systems.

Safety Appliance Violations—Alleged violations of safety appliance laws in 247

cases comprising 818 counts were transmitted to United States attorneys during the fiscal year; also, 49 cases comprising 284 counts alleging violation of the hours-of-service law. The section of the report dealing with the bureau's accident investigation work stated that 97 accidents were investigated during the year; in them 311 persons had been killed and 2,301 injured.

During the year, the plans and specifications of 10 safety devices were examined, and opinions thereon were transmitted to the proprietors or their agents. "These devices," the report explained, "included one safety guard for car wheels, one automatic safety lighting system, one interlocking rail, one tie plate, one rail-joint splicing and supporting plate, two devices for detection of hot journals, one automatic train control device, one device for closing angle cock, and one device for uncoupling tender of derailed engine from first car."

Subsidies "Benefiting National Economy" Favored by Truman

Federal aids, subsidies, and regulatory controls for transportation "should follow the general principle of benefiting the national economy as a whole" and "differential treatment which benefits one type of transportation to the detriment of another should be avoided save when it is demonstrated clearly to be in the public interest," according to President Truman's combined state-of-the-union and budget message which went to Congress on January 21. The subsidies and regulatory controls which the President regards as beneficial to the "national economy as a whole" are those which "seek to improve the transportation system and increase its efficiency with resulting lower rates and superior service."

A brief separate section of the message was devoted to "transportation," which the President called "one of the major fields for both public and private investment." The country's transportation and communication facilities, he added, "must be constantly improved to serve better the convenience of the public and to facilitate the sound growth and development of the whole economy."

Govt. Biggest Transport Agency—"Federal capital outlays for transportation facilities," he went on, "are expected to approximate 519 million dollars in the fiscal year 1947. State and local governments may spend 400 million dollars. Private investment, over half of it by railways, may approach 1,150 million dollars. The Congress has already taken steps for the resumption of work on improvement of rivers and harbors and on the construction of new federal-aid highways. Much needed work on airports can begin when the Congress enacts legislation now in conference between the two houses."

The President's recommendations for specific legislation included a reiteration of his previous recommendation for approval of the agreement with Canada for construction of the St. Lawrence seaway. He also asked again for legislation raising the minimum wage provided in the Fair Labor Standards Act, saying that he was "in full accord with the proposal now pending in the Congress that the statutory minimum

be raised [from 40 cents] to 65 cents an hour, with further increases to 70 cents after one year and to 75 cents after two years."

On Wages—Other comment of the President on the wage situation included this assertion: "Most industries and most companies have adequate leeway within which to grant substantial wage increases. These increases will have a direct effect in increasing consumer demand to the high levels needed. Substantial wage increases are good business for business because they assure a large market for their products; substantial wage increases are good business for labor because they increase labor's standard of living; substantial wage increases are good business for the country as a whole because capacity production means an active, healthy, friendly citizenry enjoying the benefits of democracy under our free enterprise system

"If we manage our economy properly, the future will see us on a level of production half again as high as anything we have ever accomplished in peacetime. Business can in the future pay higher wages and sell for lower prices than ever before. This is not true now for all companies, nor will it ever be true for all, but for business generally it is true."

Opposes Transport Census

The Interstate Commerce Commission questions the desirability of taking a census of the commercial transportation industries (other than rail transportation), as proposed in S. 1705 introduced in the Senate recently by Senator McCarran, Democrat of Nevada (see *Railway Age* of December 22, 1945, page 1034). The commission's adverse view was expressed in a letter sent by the chairman of its legislative committee — Commissioner Splawn—to Senator Bailey, Democrat of North Carolina, chairman of the Senate committee on commerce which has the bill under consideration.

The letter pointed out that the carriers which would be involved now file statistical reports with the commission or other agencies such as the Civil Aeronautics Board, Board of Engineers for Rivers and Harbors, and United States Maritime Commission. "The duplication of the statistics in the census reports," the letter also said, "would entail unnecessary expense to the government and would be burdensome to the carriers."

Wallace Outlines Broad Program for His Transport Unit

Secretary of Commerce Wallace this week issued an order setting forth the organization and functions of the Department's Office of Domestic Commerce, including the Transportation Unit, which is assigned an ambitious future program wherein some of its activities would seemingly be concerned with matters of interest to the Interstate Commerce Commission and with studies similar to some already under way at the commission. The Transportation Unit is headed by James C. Nelson, a former member of the staff of the Board of Investigation and Research which expired on September 18, 1944.

The Wallace order sets forth various

specific assignments which the unit is to carry out "in furtherance of its basic objective of providing for industry information and data on the problems of transportation, communications and other public utilities." Among the specific assignments will be studies of "entrance-and-withdrawal, financial, integration, rate and service policies" in the transportation field "in order to locate obstacles to more efficient utilization of equipment and facilities and improved services, and recommend methods of removing such obstacles."

Critical of I. C. C.—The unit has already done something along this line in the motor truck field at least. As noted in the *Railway Age* of January 12, page 160, its latest industry report found support for the trucking industry's claim that the rail level of I.C.I. rates places motor carriers at a disadvantage. The report also included much implied criticism of the I. C. C. for an alleged failure to administer the certificate provisions of the Motor Carrier Act in a way which would give full sway to the "flexibility" of motor transportation.

As it pursues another of Mr. Wallace's specific assignments, the unit will "analyze available waybill data to make available to industry by commodities, data on point to

point movements, route mileage and transportation charges." As noted in this issue's report on proposed I. C. C. appropriations for the fiscal year 1947, the commission's Bureau of Transport Economics and Statistics is already making waybill studies to supply information required by the commission in connection with the general class rate and classification cases.

Other Items of the Program—Other work of the unit, as assigned by Mr. Wallace, would be the following:

Analyze and report upon the transportation facilities and services of the country and their organization, operation, and pricing as the basis for rendering service to industry with respect to transportation problems.

Analyze transportation facilities and services for their adequacy in terms of national and regional requirements for varying quantities and types of service.

Analyze data pertaining to the use of materials, financial requirements, capital outlays of the various forms of transportation and types of carriers for the purpose of integrating detailed results with basic industry and structural studies.

Analyze the effects of transportation services, rates, and charges upon the volume of production and trade, upon the location of industries and markets, upon the utilization of surplus war plants and other resources, and upon the utilization of available transport plant and equipment.

Assist in the development of departmental policy, insofar as transportation relates to the general functioning of the domestic economy, and the requirements for transporting overseas trade.

Analyze and make recommendations concerning the effect of interstate transportation barriers on the volume and flow of commerce.

harmonize in appearance with the Diesels. Commenting on the new equipment, R. E. Woodruff, president of the railroad, said "it will enable the Erie to greatly improve the service it offers to the travelling public over the entire system. We will be able to get greater speed and offer more comfortable and luxurious trains to our passengers than ever before."

FREIGHT CARS

The PACIFIC FRUIT EXPRESS (owned jointly by the Union Pacific and the Southern Pacific) has been authorized by the parent companies to purchase 2,000 standard-type refrigerator cars at an approximate cost of \$12,000,000.

PASSENGER CARS

Pennsylvania Orders 217 Passenger Cars

On January 22, the Pennsylvania placed orders for 214 passenger cars, including sleeping cars, diners, lounge and observation cars and coaches, allocating 57 to the American Car & Foundry Co., 70 to the Edward G. Budd Manufacturing Company, and 87 to the Pullman-Standard Car Manufacturing Company. The orders will total \$21,000,000 and deliveries will begin late this year.

Including 112 new coaches previously announced and now being built, the Pennsylvania's total of all types of passenger cars now on order is 326. These new cars, all of which will be used to re-equip the railroad's leading east-west trains, and to augment the New York-Florida reserved seat coach service in joint operation with other railroads, will include 129 all-room sleeping cars, 21 lounge cars, nine observation-lounge cars, 11 twin-unit dining cars (totalling 22 cars), six single dining cars, 133 coaches, two coach-lounge cars and four baggage-dormitory cars.

The railroad also announced the purchase from the Pullman Company of 142 lightweight sleeping cars and 123 parlor cars. These cars have been in use on the Pennsylvania for some time and are regularly assigned to its service.

The UNION PACIFIC has completed plans for extensive improvements of its facilities operated in southern Utah parks which will include the following purchases of equipment: 22 new 29-passenger buses, six 9-passenger sedans for charter car service and 10 light cars for special party trips. The road will also spend more than \$500,000 for redecorating cabins, lodges and cafeterias it owns and operates in the Grand Canyon, Bryce and Zion national parks, and the Cedar Breaks national monument.

SIGNALING

The CHESAPEAKE & OHIO has placed an order with the Union Switch & Signal Co. for signal material for the direct-wire control of the switch and signal functions at "CS" Cabin and the code control of switches and signals at Stevens, Ky. A new 2½-ft. Style C control machine will be added to an existing machine now controlling the functions between Stevens and Cartwright, with the existing code system to be expanded to

Materials and Prices

The following is a digest of orders and notices that have been issued by the Civilian Production Administration and the Office of Price Administration, since January 9, and which are of interest to railroads:

Bristles—Order No. M-51 governing distribution of pigs' and hogs' bristles has been revoked by O. P. A., removing last remaining restrictions on the importation of bristles and eliminating procedure under which persons who sought to purchase bristles from the R. F. C. stockpile were required to receive specific authority from C. P. A.

Building Materials—The C. P. A. moved to direct surplus government stocks of certain building materials to accredited participants in the 1946 reconversion housing program, issuing direction No. 7 to priorities regulation No. 13. The direction applies to common and face brick, structural tile, gypsum board and lath, cast iron soil pipe and fittings, cast iron radiation, bathtubs, lumber and millwork. Under it, whenever the R. F. C. is offering any of these surplus materials, sales must be made as follows:

For ten days, 30 per cent may be sold to buyers who have preference under the surplus property act and the other 70 per cent shall be sold to buyers certifying that they are holders of HH or CC ratings or that they will resell on orders bearing those ratings.

Paper—"Colored ledger" is added to the definition of one grade of wastepaper No. 1 heavy books and magazines, in O. P. A. amendment No. 15 to regulation No. 30, effective Jan. 15.

Specifications for Wood Poles—The American Standards Association has announced the formal approval and availability of American War Standard Specifications and Dimensions for Wood Poles—Miscellaneous Conifers, 05-7-1945. Developed at the request of the O. P. A., the publication covers specifications, material requirements, dimensions, storage and handling, manufacturing requirements and definitions for poles made from 14 species of conifers grouped into four fiber stress classifications.

Copies may be obtained in lots of 1 to 24 at 30 cents each, 25 to 49 copies at 24 cents, 50 to 99 at 22 cents and 100 to 249 at 20 cents each, from the American Standards Association, 70 East 45th Street, New York 17, N. Y.

Prices

Clay Tile—An increase of 80 cents a ton in prevailing maximum prices for clay drain tile produced in Michigan and Ohio is ordered by O. P. A. in amendment No. 26 to order No. 1 under section No. 25 of regulation No. 592, effective immediately.

Lumber—Sellers of redwood lumber and millwork may add \$2.75 a M f.b.m. to f.o.b. mill ceiling prices in all f.a.s. sales for export, regardless of the class of buyer, C. P. A. ruled in amendment No. 11 to regulation No. 253 effective Jan. 14.

Equipment and Supplies

LOCOMOTIVES

The INDUSTRIAS REUNIDAS F. MATARAZZO, Sao Paulo, Brazil, has ordered one steam locomotive of 2-6-0 wheel arrangement from the H. K. Porter Company.

The ERIE has ordered seven 4,500-hp. Diesel-electric locomotives, with controlled caps on both ends to eliminate turning, from the Electro-Motive division of the General Motors Corporation. Delivery of the Diesels is expected late in 1946. They will operate between Jersey City, N. J., and Chicago on the Erie Limited, trains 1 and 2; the Midlander, trains 15 and 16; and between Jersey City and Marion, Ohio, on the Pacific Express, train 7 and the Atlantic Express, train 8. The new motive power is expected to reduce the over-all schedule time of these trains by about two hours for the Jersey City-Chicago run.

The Erie also is remodelling and modernizing the interior of 15 through-line coaches to be used with the new locomotives. The exterior color arrangement will

control the layouts at Stevens. The order includes the coding units, color-light signals, Style M-2 electric switch and lock movements, with relays, rectifiers and housings. The installation will be done by railway forces.

The INDIANAPOLIS UNION has placed an order with the Union Switch & Signal Co. for the installation of a relay type electro-pneumatic interlocking at Vandalie Junction, Indianapolis, Ind. The plant will be controlled from a Style C interlocking machine, and involves 16 Style A-5 electro-pneumatic switch movements, Style SL-21A switch lock layouts and Style N-2 color-light dwarf signals.

The CANADIAN NATIONAL has ordered a 10 by 19-in. unit-wire control machine from the General Railway Signal Company, to be installed at Fairview Junction, N. S. This machine will have 10 track indication lights and six levers for the control of a switch machine, 5 Model-10 switch locks, and six signals. Other materials ordered include Type-K relays, Type-SA signals, and a welded steel bungalow with a telephone booth.

The MISSOURI PACIFIC has ordered General Railway Signal Company equipment to install Type F, 3-wire centralized traffic control on the 4 miles of double track between Valley Junction, Ill., and North Dupo. The 56-in. control panel, to be installed at North Dupo, will be provided with 11 track indication lights and 13 levers for the control of 10 Model 5D dual-control switch machines, 5 switch locks and 14 signals. Equipment will include Type-K relays, Type-L dwarf and Type-G high signals, and factory-wired steel bungalows.

The LOUISVILLE & NASHVILLE is preparing to install General Railway Signal Company Type K, two-wire centralized traffic control on the 137.5 miles of single track between Henderson, Ky., and Strawberry, on the main line between St. Louis, Mo., and Louisville, Ky. This installation will be controlled from Evansville, Ind., by a 128-in. control panel equipped with 88 track indication lights, an automatic train recorder, and 69 levers for the control of 30 Model-5D dual-control switch machines, 4 switch locks, 2 spring switches and 96 signals. The longest individual control will be 149.5 miles. Type-SA signals, Model-9A and Model-10 switch locks, Type-K relays and welded steel bungalows and housings will be employed.

Supply Trade

Joseph E. Padgett has resigned as vice-president of the Spicer Manufacturing Corporation.

W. A. Gray, Jr., has been appointed sales representative for the Scullin Steel Company, with headquarters in St. Louis, Mo.

J. B. Kintner has resigned as vice-president of the Union Steel Castings division of the Blaw-Knox Company to establish his own company, the J. B. Kint-

ner Company, a manufacturers' agency, in Pittsburgh, Pa. The new agency's clients include the Pittsburgh Steel Foundry Corporation and the Fort Pitt Steel Casting Company.

The Dampney Company of America, of Hyde Park, Boston, Mass., has acquired the Thurmalox Company, of Doylestown, Pa.

The Durabla Manufacturing Company has moved its valve plant from its former location in Berwyn, Pa., to a newly-reconstructed building at Wayne, Pa.

C. W. Ginter, who has been associated with the Aro Equipment Corporation, Bryan, Ohio, since its organization sixteen years ago, has been appointed vice-president of the corporation.

Ellsworth H. Sherwood has been appointed New York and New England district manager for the National Malleable & Steel Castings Company's railway sales division, with offices in New York, to succeed Charles Gaspar, who is retiring after thirty years of service with the company. Mr. Sherwood, who joined Na-

positions until he was promoted to general storekeeper in charge of all stores at South Bend and Detroit, Mich. In 1918 Mr. Beaudway resigned to become assistant works manager of the Chicago Malleable Castings Company. He subsequently



W. L. Beaudway

served as works manager, general manager, treasurer, vice-president and executive vice-president, holding the latter position at the time of his election to the presidency. Mr. Beaudway is also executive vice-president and a director of the Allied Steel Castings Company, a subsidiary of Chicago Malleable.

Bowser, Inc., Fort Wayne, Ind., has acquired the complete inventory of parts and finished units and the exclusive manufacturing rights of Torrington Lubricators from the Torrington Manufacturing Company, Torrington, Conn.

John T. Llewellyn, whose election to chairman of the board of directors of the Chicago Malleable Castings Company, Chicago, was reported in the *Railway Age* of January 19, was born at Briton Ferry, South Wales, Great Britain, on July 7, 1863, and began his business career in 1879 as a sales agent of the Milwaukee (Wis.) works of the North Chicago Rolling Mill



Ellsworth H. Sherwood

tional Malleable in 1920 after attending Michigan University, has been closely identified with sales and development of the company's spun steel car wheel business. He will continue in an advisory capacity in wheel promotion in addition to his new duties as district sales manager.

The Gisholt Machine Company, Madison, Wis., has purchased the entire machine tool business of the International Detrola Corporation, of Elkhart, Ind., which it will transfer to Madison.

A. J. Reading, formerly with the Elastic Rail Spike Corporation, has joined the Railroad division of the Chipman Chemical Company, Inc. Both Chipman and Elastic Rail Spike are subsidiaries of the Bermuth, Lembcke Company.

W. L. Beaudway, whose election to president of the Chicago Malleable Castings Company, Chicago, was reported in the *Railway Age* of January 12, was born at South Bend, Ind., on August 30, 1884, and began his business career as an office boy of the Studebaker Corporation in 1898. Later he was assigned to the stores department where he held various



John T. Llewellyn

Company. From 1895 to 1899 he was president of the Belle City Malleable Iron Company, with headquarters at Racine, Wis., and in the latter year he organized the Chicago Malleable Castings Company, becoming president in 1928, the position

he held at the time of his new appointment. Mr. Llewellyn also founded the Allied Steel Castings Company, Harvey, Ill., in 1918, and has been president of that organization since that time. He is also a director of the Interstate Iron & Steel Co., and the Roseland State Savings Bank.

Roy L. Chitwood, general superintendent of production of the **T. J. Moss Tie Company**, has been elected a vice-president, succeeding **W. W. Davis**, whose death on January 1 is reported elsewhere in these columns.

Gordon D. Beckwith, a member of the New York district office of the **Haskelite Manufacturing Corporation**, Grand Rapids, Mich., has been placed in charge of a new branch office at Philadelphia, Pa., recently opened by the company.

Frank J. Meyer has been appointed chief engineer, railway division, of the **Philadelphia Steel & Wire Corp.** Mr. Meyer recently resigned as chief engineer of the New York, Ontario & Western. He has been associated with railroads during his entire business career in engineering and maintenance positions. In his new position he will follow up the use of the Phila-



Frank J. Meyer

delphia Steel & Wire product with the engineering, maintenance, motive power, mechanical and signal departments, in territories presently served by that company, and will endeavor to develop new fields.

Samuel M. Felton, for the past nine years general sales manager of the railway division of the **Edward G. Budd Manufacturing Company**, was elected "full time" president of the **American Railway Car Institute** at its annual meeting in New York on January 17.

The **Lodge & Shipley Machine Tool Co.**, Cincinnati, Ohio, has announced the appointment of the **Rudel Machinery Company, Inc.**, Boston, Mass., as exclusive sales representative and dealer in the northeastern states of Maine, Vermont, New Hampshire, Massachusetts and Rhode Island.

Norman A. Meserve, superintendent of the Gainesville, Fla., plant of the **American Lumber & Treating Co.**, has been appointed in charge of operations of a

new wood-processing plant being constructed by the company at Florence, S. C. As head of the company's southeastern production, Mr. Meserve will direct both plants from headquarters at Florence.

Roland A. Sherwood has been appointed assistant to the president of the **American Locomotive Company** with headquarters in New York. Mr. Sherwood



Roland A. Sherwood

is a graduate of Columbia University. He joined the company in 1939 and was appointed assistant to the executive vice-president last September.

K. W. Green, manager of Exide's railway sales division, has been appointed manager of the newly-consolidated railway and engineering sales division of the **Electric Storage Battery Company**, Philadelphia, Pa. During the past four years, Mr. Green has been supervising the engineering sales division in addition to his duties as head of the railway division.

Floyd Snyder, who has been continuously associated with the New York sales office since 1911, except for service in the Navy during the first World War, has been promoted to sales agent at the New York office. **George F. Wilhelmy**, who joined National Malleable in 1905, has been promoted to sales agent in the railway division's Cleveland, Ohio, office.

Maxwell A. Goodwin has returned to his pre-war position as manager of the Chicago office of Clark Tractor, a division of the **Clark Equipment Company**. Mr. Goodwin was called to Washington in July, 1942, to supervise distribution of industrial power trucks for the Army and Army Air forces. He was commissioned a captain in October, 1942, and promoted to major in November, 1943. He served as chief of the material handling equipment section of the Storage division, Headquarters, Army Service Forces.

L. M. Cassidy and **T. K. Mial** have been elected vice-presidents of the **Johns-Manville Corporation**. Mr. Cassidy formerly was a vice-president of the Johns-Manville Sales Corporation, a subsidiary, in charge of the building materials and general department. In his new capacity he will direct all sales activities of the company. Mr. Mial, also formerly a vice-president in the sales corporation, was in

charge of the power products and industrial department. He will undertake a new long-range development program for the company, reporting directly to the president. **Louis R. Hoff**, vice-president of the Johns-Manville Corporation in charge of sales, has retired. He has established himself as an independent consultant and will service Johns-Manville as a consultant on trade association matters.

Dr. George V. Slottman has been appointed head of a new technical sales division organized by the **Air Reduction Company**, of New York, to replace its former applied engineering department. Dr. Slottman, a former professor of chemical engineering at the Massachusetts Institute of Technology, has been associated with the company for ten years. **S. D. Baumer** and **E. V. David**, who have been assistant managers of the applied engineering department, have been appointed assistant managers in the new sales division.

OBITUARY

W. W. Davis, vice-president of the **T. J. Moss Tie Company**, died at Cape Girardeau, Mo., on January 1.

Financial

BALTIMORE & OHIO.—New Director.—F. Abbot Goodhue, president of the Bank of the Manhattan Company, has been appointed a director of the B. & O. for the balance of the term for which his predecessor, John R. Morron, had been elected at the November stockholders' meeting. Mr. Morron had served as a director from November 16, 1914, to December 4, 1945, when it was necessary for him to resign in connection with the railroad's offer to Pullman, Inc., to buy the Pullman Company, of both of which companies he was a director.

CHICAGO & NORTH WESTERN.—Awards Equipment Trust.—The Chicago & North Western has awarded \$6,870,000 of equipment trust certificates maturing February 1, 1947-61, to an investment banking group led by Halsey, Stuart & Co., on a bid of 100.5673 for a 1½ per cent coupon. The 1 to 15 year certificates were reoffered at prices to yield from 0.85 to 1.75 per cent, subject to the approval of the Interstate Commerce Commission.

LEHIGH & NEW ENGLAND-CENTRAL OF NEW JERSEY.—Trackage Rights.—Division 4 of the Interstate Commerce Commission has approved an agreement, the effect of which is to provide for the reciprocal use by each of these roads of the tracks owned or operated by the other from Hauto, Pa., to Nesquehoning, 4 miles.

CHICAGO, ROCK ISLAND & PACIFIC.—Promissory Note.—Division 4 of the Interstate Commerce Commission has approved the substitution of a single promissory note for \$5,277,832 for outstanding notes of this road totaling that amount and held by the First National Bank of Chicago. The securities were issued in connection with the purchase of certain equipment, and the

Railway Officers

division at the same time has approved the substitution of four 4,050-hp. Diesel-electric freight locomotives in lieu of three 5,400-hp. Diesel-electric freight locomotives as a part of the group purchased under a conditional sale agreement and financed through these notes.

ILLINOIS CENTRAL.—Approves Refunding Plan.—At a special meeting held in Chicago on January 16 stockholders of the Illinois Central voted approval of a new open-end mortgage on the property of the road as a means of refunding I. C. bonds on which heavy maturities begin in 1950. At the same time President Wayne A. Johnston told stockholders that the proposed refinancing plan was a step toward the road's intention to pay a common dividend, but added that whether or not the board of directors would declare such a payment in 1946 depended on "many factors."

MAINE CENTRAL.—Control of Ferry.—Division 4 of the Interstate Commerce Commission has approved the acquisition by this company of control of the Passamaquoddy Ferry & Navigation Co. through ownership of stock "by an affiliated person." The ferry company is a common carrier of freight by water from Eastport, Me., to Lubec, 3 miles, and an agreement has been made under which all its stock will be acquired by Charles K. Hall, now general freight agent of the Maine Central, for \$20,000, which sum is to be loaned to him by the railroad, with the stock as security. In addition, the railroad will lend Hall \$10,000 for working capital, with the ferry company's physical property as security. While the Maine Central's application to the commission was for authority to make the loans to Hall, who would leave its employ, and not to acquire control, the division held that Hall would act, in effect, as the railroad's agent, and the result of the transaction would be acquisition of control of the ferry by it.

MISSOURI-KANSAS-TEXAS.—Three Directors Elected.—The three following men were elected on January 22 to the board of directors of the Missouri-Kansas-Texas: William J. Morris, chairman of the board of the Continental Supply Company, Dallas, Tex.; William N. Thornton, vice-president and general manager of the Longhorn Portland Cement Company, San Antonio, Tex., and Richard C. Muckerman, vice-president of the City Ice & Fuel Co., St. Louis, Mo.

NORFOLK & WESTERN.—Declares Extra Dividend.—The Norfolk & Western has declared an extra dividend of \$3 a share on the common stock, in addition to a \$2.50 quarterly dividend, both payable March 9. This is the first extra dividend declared since 1941, when the company made a \$5 extra payment.

SOUTHERN PACIFIC.—Central Pacific Bonds.—The Central Pacific (a subsidiary of the Southern Pacific) has reduced its outstanding first refunding four per cent bonds due on August 1, 1949, by \$18,126,000 in the period between January 31 and December 31, 1945.

ST. LOUIS-SAN FRANCISCO.—Seeks to Spend Three Million.—Frank A. Thomp-

son, trustee of the St. Louis-San Francisco, has petitioned the United States District court at St. Louis, Mo., for permission to spend \$3,910,501 in 1946 for additions and betterments to the road's properties on the grounds that "it is necessary for the safe, economical and progressive operation of the line."

UNION PACIFIC.—Refunding.—This company has applied to the Interstate Commerce Commission for authority to issue \$44,493,000 of 2½ per cent debenture bonds, due in 1976, the proceeds of which are to be applied to the retirement at 103 of \$44,717,000 of 3½ per cent debenture bonds due in 1970 and 1971.

Average Prices Stocks and Bonds

	Jan. 22	Last week	Last year
Average price of 20 representative railway stocks	65.16	64.84	47.06
Average price of 20 representative railway bonds	93.67	102.39	102.28

Dividends Declared

Atlantic Coast Line.—\$1.00, payable March 13 to holders of record February 13.

East Pennsylvania.—Semi-annually, \$1.50, payable January 15 to holders of record December 31.

Erie.—\$5 preferred, quarterly, \$1.25, payable March 1, June 1, September 1, and December 1, to holders of record February 14, May 17, August 16, and November 15, respectively.

Louisville & Nashville.—Quarterly, 88c, payable March 13 to holders of record February 1.

Mine Hill & Schuylkill Haven.—Semi-annually, \$1.00, payable February 1 to holders of record January 18.

North Carolina.—7% gtd., semi-annually, \$3.50 payable February 1 to holders of record January 21.

Wheeling & Lake Erie.—4% prior lien, quarterly, \$1.00, and 5½%, preferred, quarterly, \$1.37½, both payable February 1 to holders of record January 25.

Abandonments

CHICAGO & NORTH WESTERN.—Division 4 of the Interstate Commerce Commission has extended for a further period of 2 years its reservation of jurisdiction for the protection of any employees who may be adversely affected by this company's abandonment of a line from Winde, Mich., to Ladoga.

CHICAGO, ROCK ISLAND & PACIFIC.—In connection with a plan to relocate its line between Ainsworth, Iowa, and Brighton, this road has applied to the Interstate Commerce Commission for authority to abandon the 12.5-mile section of the present line between Brighton and Washington. The 8.4-mile Washington-Ainsworth section would be retained in service although it would not comprise part of the relocated main line.

ACCORDING TO REPORTS from the Swedish-American News Agency, lives of Swedish mothers forced to travel with babies and young children have been simplified. Three coaches, specially equipped with "mother-and-child" compartments have been put into service on the state railways. The cars, designed to comply with directives from the Swedish Medical Board and private welfare agencies, have dining places and toilet facilities fashioned to accommodate youngsters. An additional 25 similar cars have been ordered.

EXECUTIVE

Joseph L. Edwards, vice-president of the Atlanta, Birmingham & Coast at Atlanta, Ga., has been appointed executive general agent of the Atlantic Coast Line at Atlanta.

John C. White, general manager of the Central Region of the Pennsylvania at Pittsburgh, Pa., has been promoted to vice-president, with headquarters at New York, where he succeeds **George LeBouillier**, who has retired after more than 50 years of service.

Edward P. Vernia, whose retirement as vice-president-traffic of the Chicago, Indianapolis & Louisville, with headquarters at Chicago, was reported in the *Railway Age* of January 12, was born at New Albany, Ind., on July 21, 1875, entered railroad service on September 1, 1892, as a bill clerk on the Chicago, Indianapolis & Louisville, at Louisville, Ky., and served in



Edward P. Vernia

various minor positions until 1914, when he was appointed district freight agent at Bedford, Ind. In 1919 Mr. Vernia was advanced to district freight and passenger agent at Louisville, and two years later was promoted to general freight agent at Chicago. In 1923 he was promoted to vice-president-traffic, with the same headquarters, the position he held at the time of his retirement.

H. A. Ross, general manager of the Pittsburgh & West Virginia at Pittsburgh, Pa., has been advanced to vice-president and secretary there, succeeding **A. I. Derr**, who retired on November 30, 1945. An account of Mr. Derr's railway career appeared in the December 1 issue of *Railway Age*.

W. A. Summerhays, assistant to the vice-president, purchases and stores, of the Illinois Central at Chicago, has retired. Mr. Summerhays was born at Chicago on August 11, 1879, received his higher education at the University of Illinois, entered railroad service as an engineering

track apprentice in June, 1898, and advanced through the positions of section foreman, general foreman on construction, and assistant general storekeeper. In 1910 he was promoted to general storekeeper, and served in that capacity until 1917, when he became assistant purchasing agent. Mr. Summerhays was promoted to purchasing agent in 1920, and two years later he was advanced to manager of the forest products bureau, which position he held until he was granted a leave of absence to serve as consultant to the Office of Production Management at Washington, D. C. He returned to the Illinois Central in 1942 as assistant to the vice-president, purchases and stores, the position he held at the time of his retirement.

C. L. Persons, whose retirement as assistant to the executive vice-president of the Chicago, Burlington & Quincy, with headquarters at Chicago, was reported in the *Railway Age* of January 5, was born at Wadsworth, Ill., on August 4, 1872, received his higher education at Drake University, Des Moines, Iowa, entered railroad service on October 15, 1904, as head chainman on the Burlington at Chicago, was promoted to transitman during the same year, and served until April, 1917, as resident engineer and locating engineer at various places in Illinois, Missouri, and Wisconsin, with headquarters at Chicago. For a few months in 1917 he was surveyor for a government plant at Bellevue, Ill., and later in the same year he was in charge of the Metropolis Bridge. During part of 1917 and 1918 Mr. Persons was in charge of the track elevation at Aurora, Ill. In August, 1918, he was promoted to assistant chief engineer, lines east, with headquarters at Chicago, and served in that capacity until May, 1939, when he was advanced to assistant to the executive vice-president, the position he held at the time of his retirement.

FINANCIAL, LEGAL AND ACCOUNTING

Robert E. Gilmor, land and tax agent of the Union Pacific, with headquarters at Omaha, Neb., has retired.

E. R. Miller, assistant to the general auditor of the Union Pacific at Omaha, Neb., has been promoted to assistant general auditor, with the same headquarters.

Donald F. Melhorn has been appointed general solicitor of the Toledo Terminal Railroad Company, with headquarters at Toledo, Ohio, succeeding **E. J. Marshall**, deceased.

George C. Doering, assistant general attorney for the Baltimore & Ohio at Baltimore, Md., has been appointed general attorney there, succeeding **Charles R. Webber**, who has retired. **Kenneth H. Ekin** succeeds Mr. Doering as assistant general attorney.

The Pennsylvania has announced changes in the office of the comptroller at Philadelphia. **Elmer Hart**, head of the staff of the comptroller, has been appointed comptroller, succeeding the late **R. C. Miller**, whose photograph appeared in the January 12 *Railway Age* together with an account

of his career. **H. J. Ward**, deputy comptroller, continues in this capacity and, in addition, will serve as the comptroller's principal assistant. **P. D. Fox**, deputy comptroller, has been named general auditor, and **G. H. Heim**, deputy comptroller, appointed assistant comptroller.

H. R. Mardoff, whose retirement as treasurer of the Chicago, Indianapolis & Louisville, with headquarters at Chicago, was reported in the *Railway Age* of January 19, was born at Pittsburgh, Pa., on June 1, 1878, entered railroad service on April 1, 1894, as an office boy in the office of the treasurer of the Chicago, Indianapolis & Louisville, and served in various minor positions until May 1, 1906, when he was promoted to cashier. On October 11, 1912, Mr. Mardoff was appointed assistant treasurer, and on October 14, 1926, he was advanced to the position he held at the time of his retirement.

E. V. Ashworth, whose promotion to auditor-revenues of the St. Louis-San Francisco, with headquarters at St. Louis, Mo., was reported in the *Railway Age* of January 12, was born at Concordia, Kan., on July 19, 1892, entered railroad service on October 2, 1908, as an office boy in the office of the auditor of freight accounts of the Frisco, and served in various clerical



E. V. Ashworth

positions until 1918, when he became accountant in the freight office at Tulsa, Okla. From August 12, 1918 to October 1, 1922 he was traveling auditor, with headquarters at St. Louis, and chief clerk from the latter date to July 16, 1925, when he was promoted to assistant auditor of freight accounts. On May 1, 1929 he became assistant auditor of revenues, and served as assistant to the general auditor from December 16, 1931 to April 15, 1932, on which date he was appointed assistant auditor of revenues, the position he held at the time of his recent promotion.

C. W. Jones, whose retirement as assistant secretary and treasurer of the Atchison, Topeka & Santa Fe, with headquarters at Los Angeles, Cal., was reported in the *Railway Age* of January 12, was born at Marshfield, Ind., on December 6, 1875, and entered railroad service on May 1, 1890, as a junior clerk with the Atlantic & Pacific (now part of the Santa Fe) at Albuquerque, N. M. Following the consolidation of that company with the Santa

Fe in 1897, Mr. Jones was transferred to Los Angeles, where his entire service has been in the treasury department. From 1897 to 1923 he was paymaster and cashier. In June, 1923, he was advanced to the position he held at the time of his retirement.

V. A. Hewitt, assistant to the chief executive officer of the Chicago, Indianapolis & Louisville at Chicago, has been promoted to treasurer, with the same headquarters, succeeding **H. R. Mardorf**, whose retirement after 52 years of service was announced in the January 19 issue of *Railway Age*.

OPERATING

W. R. Morten has been appointed superintendent of the dining car and commissary department of the Baltimore & Ohio, with headquarters at Chicago.

T. O. Weeks has been appointed division trainmaster of the Missouri Pacific at Monroe, La., replacing **A. R. Brown**, assigned to other duties.

Richard H. Bates, supervisor of train schedules of the Union Pacific at Omaha, Neb., will retire on January 31, on account of illness.

G. H. Callaway, superintendent car service of the Atlanta, Birmingham & Coast at Atlanta, Ga., has been appointed transportation assistant of the Atlantic Coast Line at Atlanta.

L. Gordon Walker, formerly superintendent of the Pennsylvania at Cape Charles, Va., has joined the Pittsburgh & West Virginia as general manager at Pittsburgh, Pa., succeeding **H. A. Ross**, whose promotion to vice-president and secretary is announced elsewhere in these columns.

D. T. Bagnell, whose promotion to general superintendent of the Twin City terminals of the Chicago, Milwaukee, St. Paul & Pacific, with headquarters at Minneapolis, Minn., was reported in the *Railway Age* of January 19, was born at York, Neb., on October 24, 1887, entered



D. T. Bagnell

railroad service on June 12, 1905, as a laborer on the Chicago, Burlington & Quincy at Lincoln, Neb., and served in various minor positions on that road until December, 1917, when he entered the service of the Milwaukee. From the latter

date until November, 1925, he served as chief clerk consecutively to the assistant general manager, the general manager, and the operating vice-president of the Milwaukee, with headquarters at Chicago. In November, 1925, he was appointed trainmaster at Dubuque, Iowa, and served there until August, 1927, when he was transferred to Minneapolis. Mr. Bagnell was advanced to assistant superintendent of terminals at Chicago in June, 1931. In August, 1933, he was promoted to superintendent at Minneapolis, the position he held at the time of his new appointment.

W. M. Black, superintendent of the Waycross district of the Atlantic Coast Line at Waycross, Ga., has been transferred to Sanford, Fla., as superintendent of the Jacksonville district. **L. E. Covin** succeeds Mr. Black as superintendent at Waycross.

Trevor Wood, whose promotion to superintendent of the Moose Jaw division of the Canadian Pacific at Moose Jaw, Sask., was reported in the *Railway Age* of January 12, was born at Hoylake, England, on April 7, 1897, entered railroad service in 1913 as a record clerk on the Canadian Pacific at Winnipeg, Man., and served in various clerical positions until



Trevor Wood

December, 1934, when he was appointed traveling car service agent, with headquarters at Winnipeg. In December, 1939, Mr. Wood was advanced to assistant superintendent of the Saskatoon division at Wilkie, Sask., and transferred to the Moose Jaw division in October, 1941, the position he held at the time of his recent promotion.

K. K. Stokes, whose promotion to general superintendent of transportation of the Chicago, Rock Island & Pacific, with headquarters at Chicago, was reported in the *Railway Age* of January 12, was born at Elmwood, Ind., on June 2, 1892, and entered railway service in 1908 as a yard clerk of the Lake Erie & Western (now part of the New York, Chicago & St. Louis), and later he was associated with the Indiana Demurrage Bureau at Indianapolis, Ind. On May 1, 1914, he was appointed claim agent of the Lake Erie & Western in charge of personal injury, livestock and fire claims. On December 8, 1917, Mr. Stokes was appointed traveling car agent of the Chicago, Burlington & Quincy, with headquarters at Chicago, sub-

sequently serving as freight and passenger car distributor, inspector of transportation and special representative of the general superintendent of transportation. During World War I he saw service with the U. S. Engineers and in 1937 he was appointed transportation inspector of the Rock Island and one year later he was



K. K. Stokes

advanced to special representative of the chief operating officer, with headquarters at Chicago. On May 1, 1940, Mr. Stokes was promoted to superintendent of refrigerator service, with the same headquarters, and on May 18, 1943, he was advanced to acting superintendent of transportation at Chicago, holding that position until January 1, 1944, when he was advanced to superintendent of transportation, the position he held at the time of his recent appointment.

George H. Baillie, whose promotion to general manager, western lines, of the Canadian Pacific, with headquarters at Winnipeg, Man., was reported in the *Railway Age* of January 12, was born at St. Lambert, Que., on July 1, 1901, entered railroad service on April 22, 1918, with the Canadian Pacific, and served in various minor positions until January 1, 1930, when



George H. Baillie

he was promoted to assistant to the general superintendent at Vancouver, B. C. On December 4, 1934, he became assistant superintendent at Lethbridge, Alta., being transferred to Wymyard, Sask., on January 1, 1935, and serving there until July 1,

1937, when he was promoted to superintendent at Vancouver. Mr. Baillie was transferred to Revelstoke, B. C., on October 9, 1941. On November 1, 1942, he was further advanced to general superintendent at Calgary, Alta., whence, on May 1, 1944, he returned to Vancouver, and served there as general superintendent until his recent promotion to general manager at Winnipeg.

These officers of the Atlanta, Birmingham & Coast now retain the same posts and headquarters for the Atlantic Coast Line: **C. E. Brower**, general superintendent, Western division, at Atlanta, Ga.; **Fred Astin, Sr.**, superintendent, Manchester, Ga.; **H. G. Dowling**, assistant superintendent, Fitzgerald, Ga. The A. C. L. also announces the following appointments: **W. O. Triplett, Jr.**, trainmaster at Manchester, and **Fred Astin, Jr.**, trainmaster at Fitzgerald.

J. R. Wood, assistant to the president and general manager of the Canadian Pacific Express Company at Toronto, Ont., has been appointed superintendent transportation with the same headquarters. **John Donaldson**, agent at Toronto, has been advanced to superintendent traffic there. Mr. Wood entered the service of



J. R. Wood

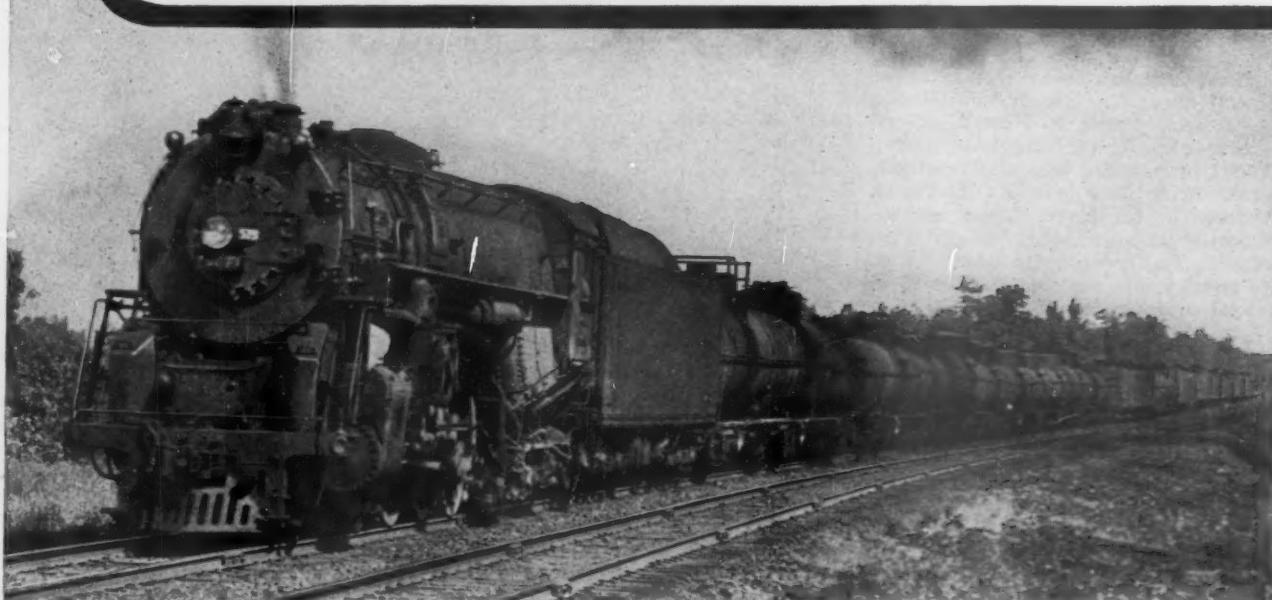
the express company at St. John, N. B., in 1908, and was transferred to Montreal, Que., in 1923 and to Toronto in 1932. He was promoted to assistant to the general manager in 1939 and assistant to the president and general manager in 1940.

A. E. Hannes, trainmaster for the Chesapeake & Ohio at Cheviot, Ohio, has been transferred to Covington, Ky., succeeding **S. H. Pulliam**, whose promotion to assistant superintendent at Huntington, W. Va., was announced in the January 19 issue of *Railway Age*. **W. S. Butler** succeeds Mr. Hannes as trainmaster at Cheviot.

R. F. Jeter, whose promotion to superintendent of terminals of the Alton at Chicago was reported in the *Railway Age* of January 19, was born at Monticello, Ark., on August 6, 1897, entered railroad service on April 15, 1917, as a yard clerk on the Alton, and served in various minor positions until September 15, 1923, when he became yardmaster. On August 15, 1931,

PROSPERITY

Depends upon The Railroads



AMERICA always counts on its railroads to provide the economical transportation on which prosperity depends. And throughout the years the railroads have responded by steadily developing their facilities to expedite the handling of traffic.

An important factor in enabling the railroads to do this has been their use of modern, more powerful steam locomotives, such as this Lima-built 2-8-4 of the Richmond, Fredericksburg and Potomac R. R.

LIMA LOCOMOTIVE WORKS



INCORPORATED, LIMA, OHIO

Mr. Jeter was promoted to trainmaster, with headquarters at Bloomington, Ill., and served in that capacity until August 15, 1940, when he became assistant superintendent of the Baltimore & Ohio Chicago Terminal at Chicago. On July 15, 1945, he was appointed trainmaster at Bloomington, the position he held at the time of his recent promotion.

Paul E. Feucht, general manager of the Western Region of the Pennsylvania at Chicago, has been transferred to the Central Region, with headquarters at Pittsburgh, Pa., where he succeeds John C. White, whose promotion to vice-president at New York is reported elsewhere in these columns. Herman H. Pevler, general superintendent of the Eastern division at Harrisburg, Pa., succeeds Mr. Feucht as general manager of the Western Region at Chicago. James P. Newell, general superintendent of the Southwestern division at Indianapolis, Ind., has been transferred to Harrisburg to replace Mr. Pevler. Andrew F. McIntyre, former superintendent of passenger transportation at Philadelphia, Pa., and recently released from the armed forces, succeeds Mr. Newell as general superintendent at Indianapolis.

J. A. Johnson, whose retirement as superintendent of telegraph and signals of the Missouri-Kansas-Texas, with headquarters at Denison, Tex., was reported in the *Railway Age* of January 12, was born at Lawrence, Kan., on March 21, 1869, entered railroad service on June 15, 1888 as signal foreman on the Michigan Central (now part of the New York Central), and served in various minor positions until February 1, 1901, when he became signal supervisor. From September 1, 1901, to October 1, 1902, he was signal inspector for the Nashville, Chattanooga & St. Louis, and from December, 1902, to October 1, 1905, he served as signal engineer for the Terminal Railroad Association of St. Louis, Mo. After a year as signal foreman with the Union Switch and Signal Company, Mr. Johnson entered the service of the Missouri-Kansas-Texas on December 6, 1906, as signal foreman, served in that capacity until March 1, 1913, when he was promoted to signal engineer. On January 1, 1933, he was advanced to superintendent of telegraph and signals, the position he held at the time of his retirement.

TRAFFIC

W. E. Shuemake has been appointed district passenger and freight agent of the Missouri Pacific, with headquarters at Birmingham, Ala.

B. S. Holland, recently returned from the armed services, has been appointed traveling freight agent for the Virginian at Columbia, S. C.

J. E. Doud has been appointed assistant general freight agent of the Atchison, Topeka & Santa Fe, with headquarters at Amarillo, Tex.

J. B. Gray, division freight agent for the Baltimore & Ohio at Charleston, W. Va., has been transferred to Baltimore, Md. **John J. Collins**, assistant general freight agent at Washington, D. C., succeeds Mr.

Gray as division freight agent at Charleston, while Donald C. Hale, Jr., succeeds Mr. Collins. **Paul K. Groniger** has been appointed district freight agent at St. Louis, Mo., succeeding **A. A. Catlett**, who has resigned after 25 years' service.

Wilbur A. Shook, general agent of the Union Pacific at Riverside, Cal., has been transferred to Glendale, Cal. **John L. Brechin**, general agent, freight department at Kansas City, Mo., succeeds Mr. Shook at Riverside. **Samuel Reinhardt**, general agent at Dallas, Tex., replaces Mr. Brechin at Kansas City. **Carroll M. Brown**, district freight and passenger agent at Atlanta, Ga., becomes general agent at Dallas, succeeding Mr. Reinhardt. **Joseph E. Pilon**, traveling freight and passenger agent at Dallas, has been appointed district freight and passenger agent at Atlanta, where he succeeds Mr. Brown.

Barton M. Croll, whose appointment as Eastern freight traffic manager of the Reading at Philadelphia, Pa., was announced in the January 19 issue of *Railway Age*, was born at Norristown, Pa., in 1890. He entered railway service in 1908 with the Reading, as a messenger at Wayne Junction, Philadelphia, subsequently be-

Witte as assistant general freight agent. **R. H. Holter**, rate clerk, has been appointed assistant general passenger agent.

E. W. Girton, whose promotion to western freight traffic manager of the Reading, with headquarters at Chicago, was reported in the *Railway Age* of January 19, was born at Coopersburg, Pa., on Febru-



E. W. Girton

ary 15, 1905, received his higher education at Temple University in Philadelphia, Pa., entered railroad service in 1922 with the Reading at Philadelphia, and served in various minor positions until 1926, when he became freight traffic representative at the same place. From 1928 to 1931, he served as traveling freight agent, also at Philadelphia, and in the latter year was promoted to assistant general agent at New York. In 1932, Mr. Girton was advanced to commercial coal agent at New York, and further advanced in 1936 to general western freight agent, the position he held at the time of his recent promotion.

Charles B. Kealhofer, traffic manager of the Atlanta, Birmingham & Coast at Atlanta, Ga., has been appointed assistant traffic manager of the Atlantic Coast Line there.

D. C. Boy, assistant industrial commissioner for the Chesapeake & Ohio, has been appointed industrial commissioner, with headquarters as before at Huntington, W. Va.

William Wallace, traveling passenger agent of the Chicago, Milwaukee, St. Paul & Pacific at Detroit, Mich., has been promoted to assistant general passenger agent, with headquarters at Seattle, Wash., a newly-created position.

E. M. Cheney, former general traveling agent of the Waterloo, Cedar Falls & Northern, who has been on leave of absence to serve with the armed forces, has returned to the road as assistant traffic manager, with headquarters at Chicago.

A. C. Stenberg, whose promotion to traffic manager of the Duluth, South Shore & Atlantic, with headquarters at Marquette, Mich., was reported in the *Railway Age* of January 5, was born at Duluth, Minn., on November 28, 1897, entered railroad service on October 15, 1913 as a clerk in



Barton M. Croll

coming a clerk. In 1910, he became soliciting freight agent at Philadelphia, and in 1912, traveling freight agent there. He became general agent at New York in 1922, and returned to Philadelphia as division freight agent in 1923, advancing to assistant general freight agent there in 1928. Mr. Croll was promoted to assistant freight traffic manager at Philadelphia in 1939, and maintained this position until his appointment as Eastern freight traffic manager became effective on January 1.

The Baltimore & Ohio has announced the following changes at Baltimore, Md.: **H. G. Settle**, assistant freight traffic manager, succeeds P. D. Freer, who retired on January 1, as freight traffic manager. **J. C. McGohan**, general freight agent, succeeds Mr. Settle as assistant freight traffic manager, while **R. J. Beggs** succeeds Mr. McGohan as general freight agent. **J. A. Martin**, assistant general freight agent, becomes assistant to freight traffic manager, succeeding Mr. Beggs, and Mr. Martin is succeeded by **H. A.**

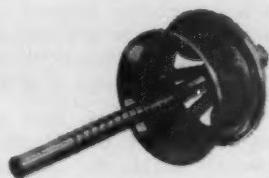
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the general traffic department of the Duluth, South Shore & Atlantic at Duluth, and held various minor positions until 1924, when he became chief clerk to the traffic manager and general freight agent. In April, 1929, he was promoted to general agent at Spokane, Wash., where he remained until he was appointed district freight agent at Seattle, Wash., in September, 1939. Mr. Stenberg was promoted to general western freight agent at Seattle in July, 1944, and a year later, in September, he was advanced to assistant traffic manager at Marquette, the position he held at the time of his recent promotion.

R. E. Chappell, division passenger agent of the Atchison, Topeka & Santa Fe at Denver, Colo., has been promoted to assistant general passenger agent, with headquarters at Los Angeles, Cal., succeeding **F. E. Stewart**, deceased.

William H. Fenwick, whose retirement as passenger traffic manager of the Missouri-Kansas-Texas, with headquarters at St. Louis, Mo., was reported in the *Railway Age* of January 12, was born at Sedalia, Mo., on November 24, 1874, and entered railroad service on August 5, 1889 as an office boy with the Missouri-Kansas-Texas, in the service of which Mr. Fenwick's whole business career has been spent, with headquarters at Sedalia, Par-

Mr. Parks returned to the Burlington, subsequently serving as tariff and divisions clerk and chief clerk, divisions bureau. In October, 1936, he was promoted to assistant general freight agent in charge of the divisions bureau, and in April, 1939, he

Agents Association of Chicago, and of the American Association of Traveling Passenger Agents.

ENGINEERING & SIGNALING

F. R. Woolford has been appointed division engineer of the Missouri Pacific at Poplar Bluff, Mo., succeeding **G. M. Helmig**, whose promotion to district engineer is reported elsewhere in these columns.

William A. Spell, chief engineer of the Atlanta, Birmingham & Coast at Atlanta, Ga., has been appointed engineer maintenance of way of the Atlantic Coast Line at Atlanta.

J. H. Gill, division engineer of the Seaboard Air Line at Savannah, Ga., has been promoted to assistant to the chief engineer, with headquarters at Norfolk, Va., succeeding **J. R. Traphoner**, who has been assigned to other duties.

J. W. Hayes, whose promotion to architect of the Great Northern, with headquarters at St. Paul, Minn., was reported in the *Railway Age* of January 12, was born at Portland, Ore., on November 30, 1908, received his higher education at the



E. T. Parks

was appointed assistant general freight agent in charge of rates, with headquarters at Omaha, Neb. In May, 1943, he was promoted to general freight agent at Chicago, the position he held at the time of his recent promotion.

Donald C. Mead has been appointed general agent, freight department, of the Chicago, St. Paul, Minneapolis & Omaha at Minneapolis, Minn., succeeding **H. C. Langerude**, who has been transferred to Cleveland, Ohio.

E. H. Moot, whose promotion to general passenger agent of the Great Northern at Chicago was reported in the *Railway Age* of January 19, was born at Alma, Wis., on July 31, 1881, entered railroad service on December 1, 1897 as an errand boy on the Great Northern at Chicago, and served in various minor positions until 1907, when he was promoted to traveling passenger agent at Chicago, where



William H. Fenwick

sons, Kan., and St. Louis. He rose successively through the positions of clerk, stenographer, ticket stock clerk, rate clerk, chief rate clerk, chief clerk, and assistant general passenger agent until, in March, 1919, he was promoted to general passenger agent at St. Louis. In July, 1934, he was further advanced to passenger traffic manager, with the same headquarters, the position he held at the time of his retirement.

E. T. Parks, whose promotion to assistant general freight traffic manager of the Chicago, Burlington & Quincy, with headquarters at Chicago, was reported in the *Railway Age* of December 29, was born at Cuba, Ill., on January 5, 1895, and was graduated from the Chicago-Kent College of Law in 1923. He entered railway service in May, 1916, in the office of the auditor of freight accounts of the Burlington, and during World War I he served with the U. S. Navy. In August, 1919,



E. H. Moot

he has remained during his career with the Great Northern. In 1917 he was advanced to district passenger agent, and three years later he was promoted to general agent, passenger department, the position he held at the time of his recent promotion. Mr. Moot is a past president of the General



J. W. Hayes

Oregon Institute of Technology and the University of Minnesota, and entered railroad service on April 6, 1929, as clerk and chainman on the Spokane, Portland & Seattle at Portland. On August 13, 1936, he entered the service of the Great Northern as assistant to the master carpenter, and was promoted to assistant architect at St. Paul, Minn., on March 1, 1940, and held this position until the time of his recent promotion.

J. Burdette Morran, executive assistant of the International at Buffalo, N. Y., has been appointed engineer of way, with headquarters unchanged, succeeding **Henry E. Rieixinger**, who retired on November 1, 1945, after 35 years of service.

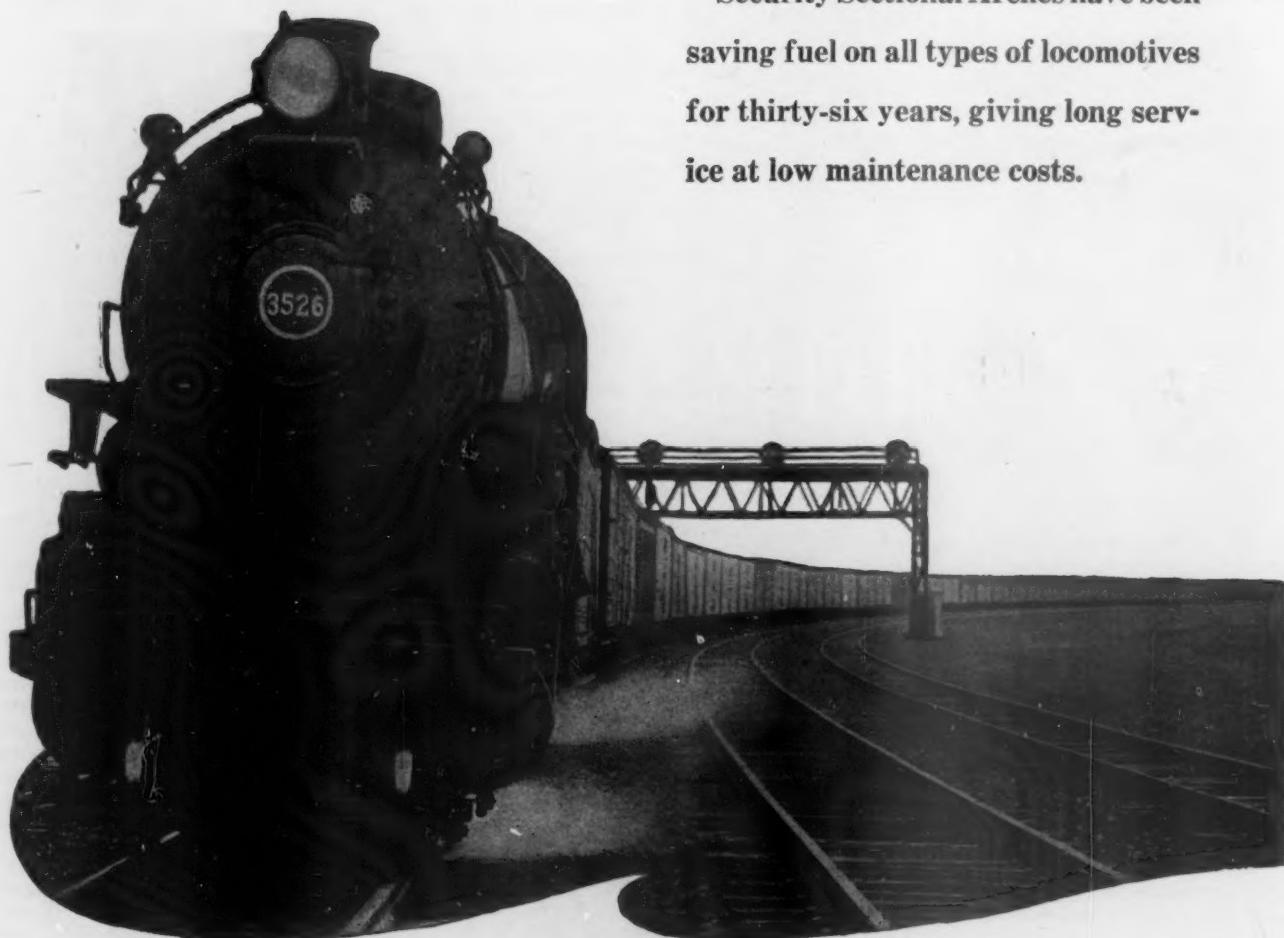
W. V. Clements, chief clerk to the vice-president of the Macon, Dublin & Savannah at Macon, Ga., has been appointed supervisor track and structures there, succeeding **R. G. Weaver**, who has resigned.

G. M. Helmig, division engineer of the Missouri Pacific at Poplar Bluff, Mo., has been promoted to district engineer, South-

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ern district, with headquarters at Little Rock, Ark., replacing **A. B. Chaney**, who has been granted leave of absence to serve on a special railway mission in the Republic of Ecuador.

J. C. Nichols, associate bridge engineer of the Louisville & Nashville at Louisville, Ky., has been promoted to bridge engineer, with the same headquarters, succeeding **Charles Bruce**, assigned to other duties. **Walter Kuersteiner**, assistant bridge engineer at Louisville, has been advanced to associate bridge engineer, replacing Mr. Nichols. **E. P. Benedict**, assistant engineer, succeeds Mr. Kuersteiner as assistant bridge engineer. **Charles Stoecker**, recently released from the armed forces, has been appointed assistant engineer, succeeding **Robert McLaughlin**, assigned to other duties.

R. B. Jones, whose promotion to assistant chief engineer, system, Canadian Pacific, was announced in the *Railway Age* of January 12, was born on March 21, 1885, at Glasgow, Scotland, and obtained his early experience in railway engineering with a railway in England. From 1906 to 1910, he served in an engineering capacity



R. B. Jones

with a private concern. At the end of this period he entered the service of the Grand Trunk Pacific (now part of the Canadian National) where he served as a draftsman, transitman and building inspector on the construction of the terminal at Fort William, Ont. While with this company he was also engaged on preliminary and location survey work in Saskatchewan. From 1913 to 1915, Mr. Jones served as a draftsman and transitman with the Canadian Pacific on yard design and on track revision surveys along the north shore of Lake Superior. During the first World War, he served with the Canadian Field Artillery overseas as a gunner, sergeant and lieutenant, returning to the Canadian Pacific in 1919 as an assistant engineer in the office of the chief engineer. In 1939 he was promoted to the position he held at the time of his new appointment.

W. G. Dyer, who succeeds Mr. Jones, entered railway service as a rodman of the Canadian Pacific at Regina, Sask., while attending the University of Saskatchewan. He graduated in 1928 and entered the service of the Canadian Pacific on a permanent basis as a building inspector,

with headquarters at Saskatoon, Sask. Mr. Dyer later served in various capacities at different points of the road and became resident engineer, with headquarters at Moose Jaw, Sask. In 1941 he was advanced to division engineer at that point and

was appointed chief clerk to the superintendent of telegraph and signals, the position he held at the time of his recent promotion.

H. M. Goehring, whose promotion to assistant chief engineer of the Great Northern, with headquarters at Seattle, Wash., was reported in the *Railway Age* of January 12, was born in Butler county, Pa., on June 30, 1887, received his higher education at Bucknell University, and entered railroad service in 1913 on the construction of terminals at Winnipeg, Man. From 1914 to 1916 he served in the division engineer's office of the Great Northern at Hibbing, Minn. In 1917, Mr. Goehring was promoted to assistant engineer, water service, at St. Paul, Minn., and served in that capacity until 1939, when he was advanced to office engineer, with the same headquarters, the position he held at the time of his recent promotion.

H. B. Barry, whose promotion to chief engineer of the St. Louis-San Francisco, with headquarters at Springfield, Mo., was reported in the *Railway Age* of January 12, was born at Hillsboro, Ill., on May 19, 1880, and received his higher education at



W. G. Dyer

in 1943 he was transferred to Penticton, remaining in that location until his new promotion.

John Wallenius, division engineer of the Renova division of the Pennsylvania at Erie, Pa., has been transferred to the Long Island, succeeding **R. W. Grigg**, whose promotion to superintendent of the Delmarva division was reported in the January 19 issue of *Railway Age*, along with a photograph of Mr. Grigg and an account of his railway career. **C. E. Gipe**, assistant division engineer at Ft. Wayne, Ind., has been advanced to succeed Mr. Wallenius as division engineer of the Renova division.

Herman Krattiger, whose promotion to superintendent of communications of the Missouri-Kansas-Texas, with headquarters at Denison, Tex., was reported in the *Railway Age* of January 12, was born at Denison on October 4, 1893, entered railroad service as a messenger on the Missouri-Kansas-Texas at Denison, and served in



H. B. Barry

the University of Illinois. He entered the service of the Frisco on August 16, 1906, as an instrumentman in the district engineer's office at Monett, Mo., and became assistant engineer at Memphis, Tenn., on November 20, 1906. In April, 1911 he was promoted to district engineer at Chaffee, Mo., and on March 1, 1920, he was further advanced to principal assistant engineer in the chief engineer's office at St. Louis, Mo. On May 1, 1929, Mr. Barry was promoted to assistant chief engineer, first at St. Louis and later at Springfield, the position he held at the time of his recent promotion.



Herman Krattiger

various minor positions until April 1, 1916, when he was promoted to chief clerk of the telegraph department. When the telegraph and signal departments were consolidated on January 1, 1933, Mr. Krattiger

R. R. Wood, whose promotion to signal engineer of the Missouri-Kansas-Texas, with headquarters at Denison, Tex., was reported in the *Railway Age* of January 12, was born at Susquehanna, Pa., on February 12, 1889, received his higher education at Pennsylvania State College, and first entered railroad service during the summer of 1909 as an assistant maintainer on the Delaware division of the Erie. From 1912 to 1914 he served as special engineering apprentice with the Union Switch & Signal Co., and from 1914 to

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1915 as construction signal foreman with the same company. On October 8, 1915, Mr. Wood entered the service of the Missouri-Kansas-Texas as signal draftsman at



R. R. Wood

Denison, advanced to signal inspector in March, 1916, and further advanced to signal supervisor in November, 1917. In January, 1920, Mr. Wood was promoted to general signal inspector, and served in that capacity until 1941, when he was appointed senior signal supervisor, the position he held at the time of his recent promotion.

M. A. Stainer, whose retirement as assistant chief engineer of the Burlington Lines, with headquarters at Denver, Colo., was reported in the *Railway Age* of January 19, was born at Hays, Kan., on April 9, 1883, after graduation from the University of Kansas in 1904. Mr. Stainer was employed by various contractors and consulting engineers, chiefly in the vicinity of Kansas City, Mo., until June, 1911, when he was made chief engineer of construction of the Nashville-Gallatin Interurban Railway at Nashville, Tenn. Upon the completion of this road he was made general superintendent and in 1914, he returned to Kansas City for further work with consulting engineers at that place. In October, 1915, he entered the service of the Panhandle & Santa Fe, in the valuation department at Amarillo, Tex., and in September, 1916, he was transferred to the Gulf, Colorado & Santa Fe at Galveston, Tex. Mr. Stainer was appointed roadmaster at Center, Tex., in July, 1917, and one year later he went with the Fort Worth & Denver City as assistant valuation engineer at Ft. Worth, Tex. In October, 1918, he was promoted to district engineer and in March, 1920, his title was changed to engineer of maintenance of way of the F. W. & D. C. and of the Wichita Valley. In October, 1932, his title was changed to engineer, with headquarters as before at Ft. Worth, Tex. On July 1, 1939, he was advanced to assistant chief engineer at Denver, the position he held at the time of his retirement. From August, 1941, to August, 1945, Mr. Stainer was also chief engineer of the Denver Union Terminal.

MECHANICAL

C. S. Perry, superintendent motive power of the Atlanta, Birmingham & Coast at Atlanta, Ga., has been appointed superin-

tendent motive power of the Atlantic Coast Line, with headquarters unchanged.

A. B. Lawson has been appointed mechanical engineer of the Baltimore & Ohio at Baltimore, Md., and **H. L. Holland**, engineer car construction there, advanced to assistant mechanical engineer.

F. C. Ruskaup, master mechanic of the New York Central at Springfield, Mass., has been appointed assistant superintendent of equipment, with headquarters at Indianapolis, Ind.

J. J. Daugherty, former general locomotive foreman of the Southern Pacific at Houston, Tex., recently released from the armed forces, has been appointed superintendent of shops, with the same headquarters.

F. J. Cebulla, whose promotion to master car builder of the Great Northern, with headquarters at St. Paul, Minn., was reported in the *Railway Age* of January 12, was born in Germany on May 30, 1881, entered railroad service on April 12, 1902, in the car department of the Great Northern at Havre, Mont., and served as car foreman from February 8, 1908 until July 15, 1912, when he became foreman of the



F. J. Cebulla

car shops at Superior, Wis. In April, 1928, Mr. Cebulla was promoted to shop superintendent at St. Cloud, Minn., and on December 1, 1937 he was advanced to assistant master car builder at St. Paul, the position he held at the time of his recent promotion.

F. R. Hosack, former mechanical superintendent of the Missouri Pacific at St. Louis, Mo., recently released from the armed forces, has been appointed assistant chief mechanical officer, with the same headquarters.

G. W. Short, general foreman of the Baltimore & Ohio at Chicago, has been promoted to master mechanic, with the same headquarters, succeeding **L. R. Haase**, who has been transferred to the Buffalo division, with headquarters at DuBois, Pa.

P. P. Barthelemy, whose retirement as master car builder of the Great Northern, with headquarters at St. Paul, Minn., was reported in the *Railway Age* of January 12, was born in Benton county, Minn.,

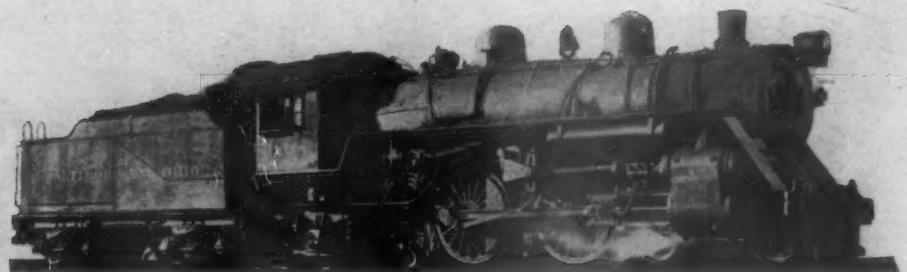
received his higher education at the University of Minnesota, and entered railroad service as a mechanic in the shops of the Great Northern at St. Cloud, Minn. He advanced successively through the positions of air brake foreman and assistant car foreman, later becoming car foreman at Spokane, Wash. From 1915 to 1917 he was employed on car valuation work, and served as assistant general car foreman at Great Falls, Mont., from 1917 to 1919, when he was promoted to general car foreman at St. Paul, which position he held until 1923. From 1923 to 1937 Mr. Barthelemy served as assistant master car builder at St. Paul. On December 1, 1937, he was advanced to master car builder, the position he held at the time of his retirement.

George W. Birk, whose promotion to superintendent of equipment of the New York Central, with headquarters at Indianapolis, Ind., was reported in the *Railway Age* of January 19, was born at Indianapolis on April 19, 1900, was graduated from Purdue University in 1925, first entered railroad service in 1918 as a machinist apprentice with the New York Central at Indianapolis, and served as special apprentice from 1924 to 1929, when he became special engineer at Indianapolis. On April 22, 1930, he was appointed assistant air brake supervisor, served in this capacity until February 16, 1936, on which date he became special inspector. He was appointed lubrication inspector on October 1, 1937, and supervisor of locomotive and fuel performance at Buffalo, N. Y., on August 1, 1940. On February 1, 1941, Mr. Birk was promoted to assistant to the general superintendent of motive power at New York, and later in the same year to assistant superintendent of locomotive shops at Indianapolis. He was further advanced to superintendent of locomotive shops at Indianapolis on December 1, 1941, and held that position until July 1, 1942, when he was appointed assistant to the general superintendent of motive power at New York. On February 1, 1944, he was advanced to assistant superintendent of equipment at Indianapolis, the position he held at the time of his recent promotion.

PURCHASES AND STORES

J. H. Liebenthal, whose retirement as purchasing agent of the Chicago, Indianapolis & Louisville, with headquarters at Chicago, was reported in the *Railway Age* of January 12, was born at Louisville, Ky., on December 21, 1870. He entered railroad service on October 21, 1890, as an apprentice in the mechanical department of the Louisville & Nashville at Louisville, and served in various minor positions until 1902, when he was promoted to chief clerk to the master mechanic of the same road. From 1910 to 1916 he was chief clerk to the superintendent of motive power of the Chicago, Indianapolis & Louisville at Lafayette, Ind., and from March 1, 1916, to November 1, 1917, he was assistant to the superintendent of motive power of the Lehigh Valley at Bethlehem, Pa., returning to the Chicago, Indianapolis & Louisville on the latter date as assistant to the superintendent of motive power at Lafayette. On February 1, 1919, he was advanced

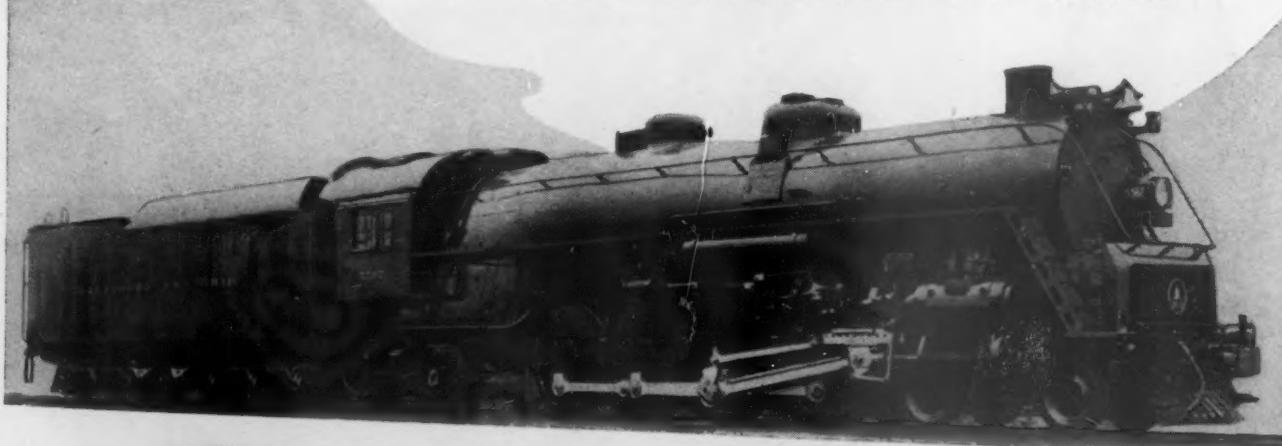
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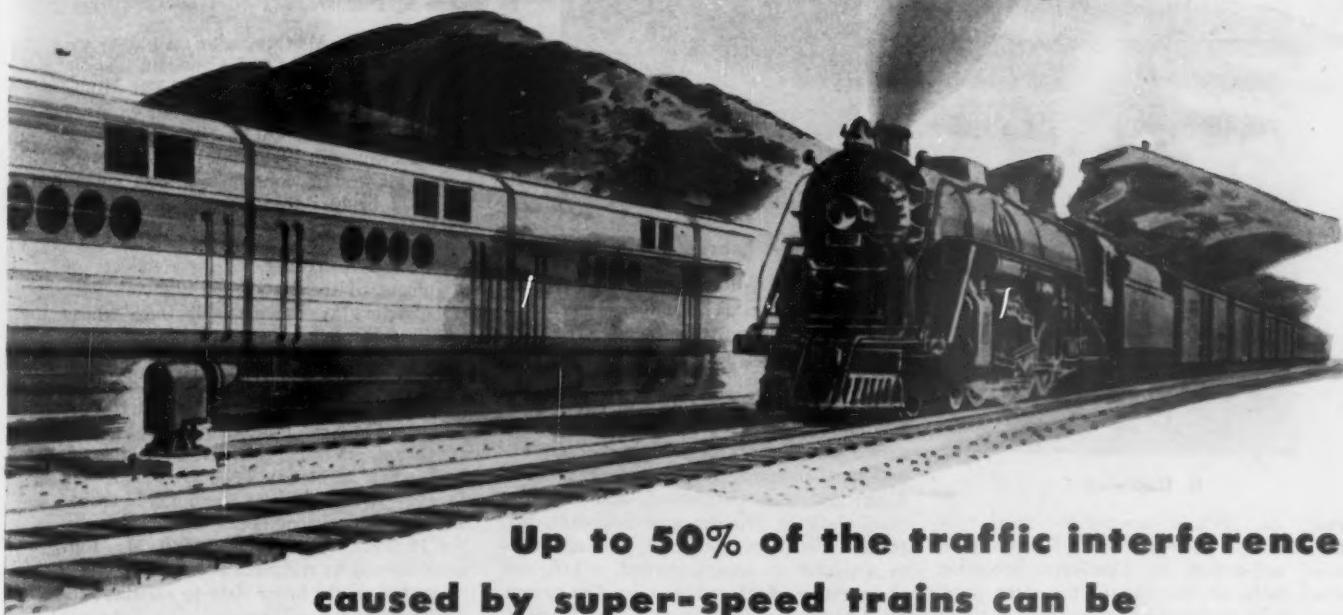
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to purchasing agent of the same road at Chicago, the position he held at the time of his retirement.

R. Bostwick, whose promotion to purchasing agent of the Chicago, Indianapolis & Louisville, with headquarters at Lafayette, Ind., was reported in the *Railway Age* of January 12, was born at Atchison, Kan., on October 20, 1889, entered railroad service on May 28, 1908 as a laborer on the Missouri Pacific, becoming division storekeeper at Coffeyville, Kan., on April 1, 1913, later being transferred to Van Buren, Ark., and Jefferson City, Mo. On Feb-



R. Bostwick

ruary 22, 1915 he entered the service of the Chicago, Indianapolis & Louisville as chief accountant at Lafayette, becoming chief clerk on May 15 of the same year, and division storekeeper at South Hammond, Ind., on December 10. Mr. Bostwick was transferred to Bloomington, Ind., on July 1, 1917, and promoted to general storekeeper at Lafayette on October 20, 1918, the position he held at the time of his recent promotion.

SPECIAL

William A. Rogers, former consultant for Railway Express, has returned from service in the United States Navy and been appointed public relations representative.

W. F. Rentzel, whose retirement as superintendent of safety of the Southern Pacific, with headquarters at Houston, Tex., was reported in the *Railway Age* of January 12, was born at Sherman, Tex., on July 18, 1877, entered railroad service on January 1, 1895 as a track laborer on the Houston East & West Texas (now part of the Southern Pacific) at Nacogdoches, Tex., and served in various minor positions until 1917, when he became assistant superintendent, serving jointly on the old Shreveport and Beaumont divisions. In 1918 Mr. Rentzel was appointed master mechanic at Lufkin, Tex., and after the war he was promoted to road foreman of engines (afterwards changed to traveling engineer), with headquarters at Houston. On October 16, 1942, he was further advanced to superintendent of safety, with jurisdiction over the lines in Texas and Louisiana, the position he held at the time of his retirement.

Lieutenant-Colonel Laurence F. Annable, whose appointment as superin-

tendent, relief department, of the Chicago, Burlington & Quincy at Chicago, pending discharge from the United States Army, was announced in the *Railway Age* of July

War II in 1942 as a captain, and was subsequently promoted to major and lieutenant colonel. Colonel Annable, now on terminal leave, retains his lieutenant-colonelcy, in the Officer Reserve Corps.

OBITUARY

William G. Osment, director of the Guantanamo & Western Railroad of Cuba, died on January 2 at Miami, Fla.

William T. Treleaven, who retired in 1936 as general livestock agent of the Atchison, Topeka & Santa Fe, died at his home in Dallas, Tex., on January 21.

Phillips B. Motley, who retired as engineer of bridges of the Canadian Pacific in June, 1937, died on January 13 at Montreal, Que. Mr. Motley had served 45 years with the Canadian Pacific, becoming engineer of bridges in 1911, and thereafter overseeing all design, construction, and supervision of bridges from the Atlantic to the Pacific.

R. W. Retterer, superintendent of equipment of the New York Central, with headquarters at Indianapolis, Ind., whose death on December 28 was reported in the *Railway Age* of January 19, was born at Marion, Ohio, on December 21, 1888, entered railroad service in July, 1904, as a caller on the New York Central, and served in various minor positions until July 1, 1915, when he became head draftsman. On January 1, 1917, he was promoted to assistant mechanical engineer. From September 16, 1921, to October 1, 1940, Mr. Retterer served as mechanical engineer, being promoted on the latter date to assistant superintendent of equipment. On February 1, 1944, he was further advanced to superintendent of equipment, and served in that capacity until the time of his death.



Lieut.-Col. Laurence F. Annable

28, 1945, returned to his new assignment on the Burlington on December 1. Colonel Annable was born at Downers Grove, Ill., on September 23, 1896. He entered railway service in June, 1916, as a night station helper for the Chicago, Burlington & Quincy, and subsequently held many varied assignments: track timekeeper, extra gang timekeeper, chief clerk to chief dispatcher, car distributor, and assistant chief clerk to division superintendent, and others. In July, 1933, he was advanced to assistant to superintendent, relief, employment, medical and pension department. He later became secretary of the Burlington's board of pensions. In World War I, Colonel Annable served in the corps of engineers. He entered the Army in World

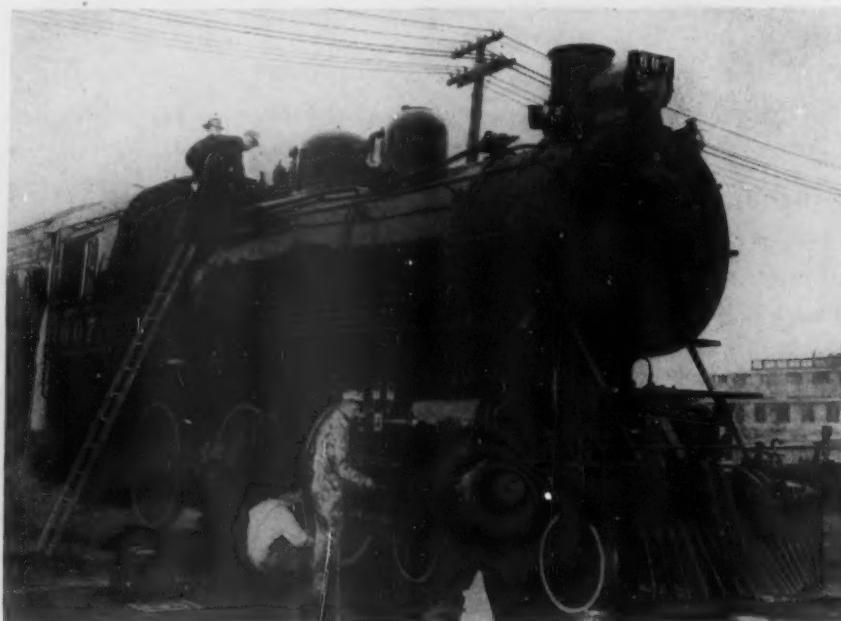


Photo Courtesy C. P. R.

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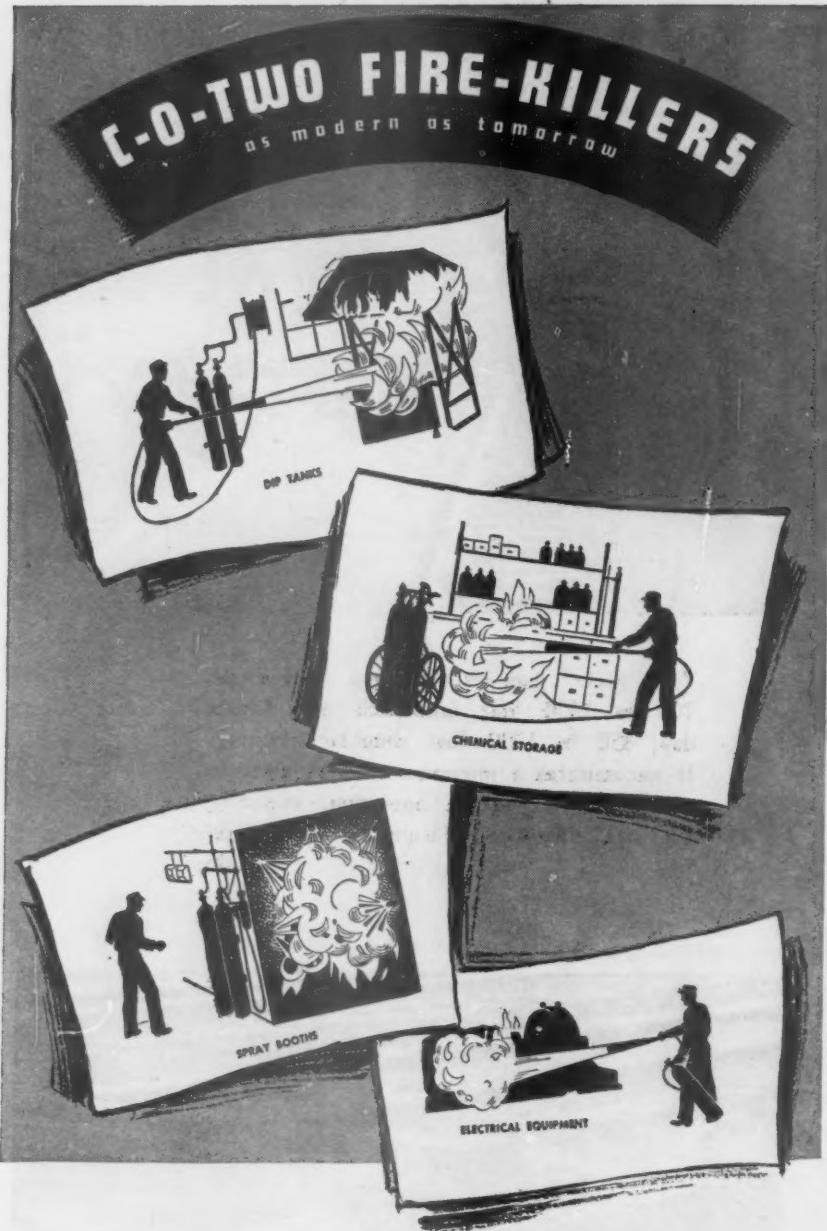
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Current Publications

From Trail Dust to Star Dust; The Story of American Transportation, by Edward A. Starr, 260 pp., maps, illustrations. Published by the Transportation Press, P. O. Box 381, Dallas 1, Tex. Price \$3.

Presents briefly, with the assistance of maps, the evolution of our transportation, tracing its development from the time of the river trails up to the present day.

Pamphlets

Transportation; The Bulwark of the American Enterprise System; Questions and Answers, 28 pp. Published by the Transportation Association of America, 105 West Adams Street, Chicago 3. Price, ten cents.

The Association has, during the past year, received many inquiries regarding national transportation policies. In this booklet it has assembled and responded to the most significant of these questions.

Proposal for a National Railway Corporation—Unification of All Railways of the United States Into a Single System, 25 pp. Copyright 1945 by A. J. Boyle, 1365 National Press Building, Washington 4, D. C. Gratis.

This brochure is being distributed "in the hope and expectation that it will capture your interest and support toward the building and maintenance of a railway system in the United States to adequately service the public, and to meet all future emergencies. A secondary, but prime consideration is that of insuring constructive employment to millions during the trying years of readjustment. It encompasses only a general practical plan with supporting data from official and authentic sources. . . . A detailed legislative formula is left where it belongs—in the hands of Congress."

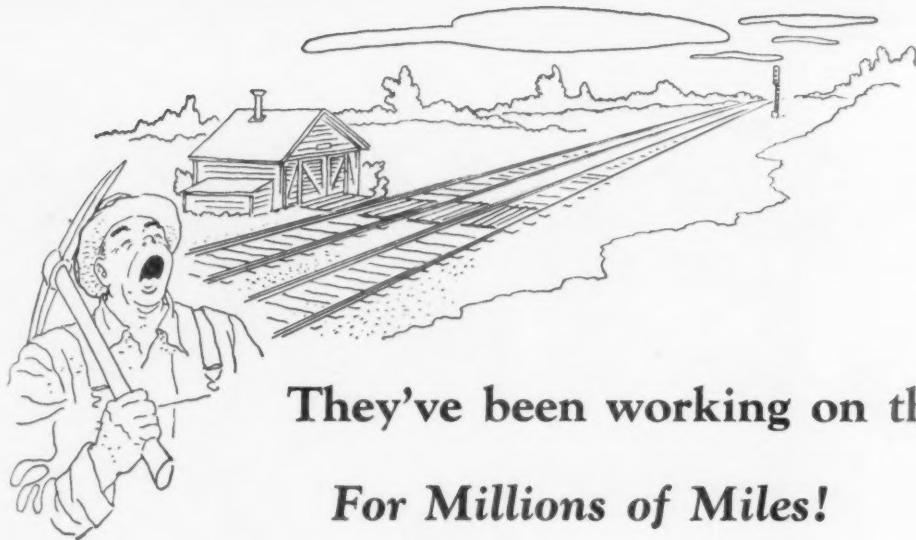
A Statistical Record of Railroad Transportation in the United States, prepared for the Subcommittee on Economic Study of the Railroad Committee for the Study of Transportation, by the Association of American Railroads, Bureau of Railway Economics, Washington 6, D. C., 37 pp. Gratis, from the Association.

"These pages furnish a statistical record of the development and technological progress of railways in the United States, beginning with the year 1911. . . . With minor exceptions, which are noted in the respective tables, the statistics apply to railways of Class I." A very handy reference tool. Not all the series go back as far as 1911, but when figures for early years are not available, this fact is noted, thus making it possible to answer the often-asked question of "How far back are such-and-such figures available?"

Articles in Periodicals

The "Railroad Scheme" of Massachusetts, by Edward C. Kirkland. The Journal of Economic History, November, 1945, pp. 145-171.

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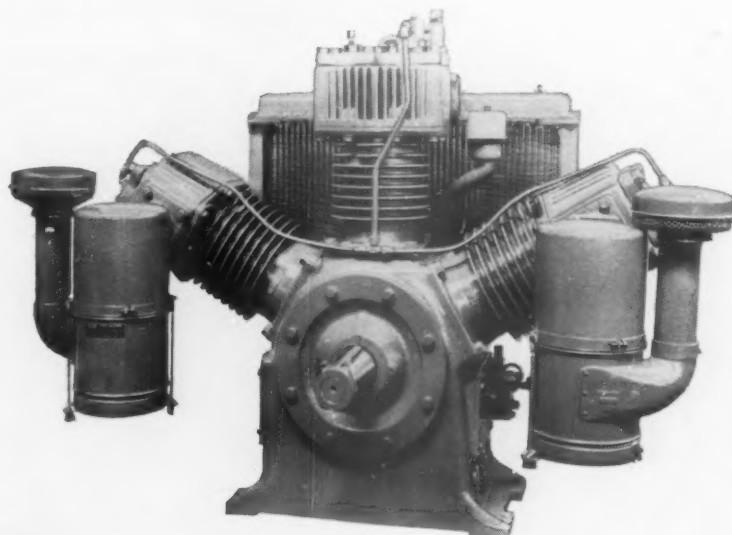


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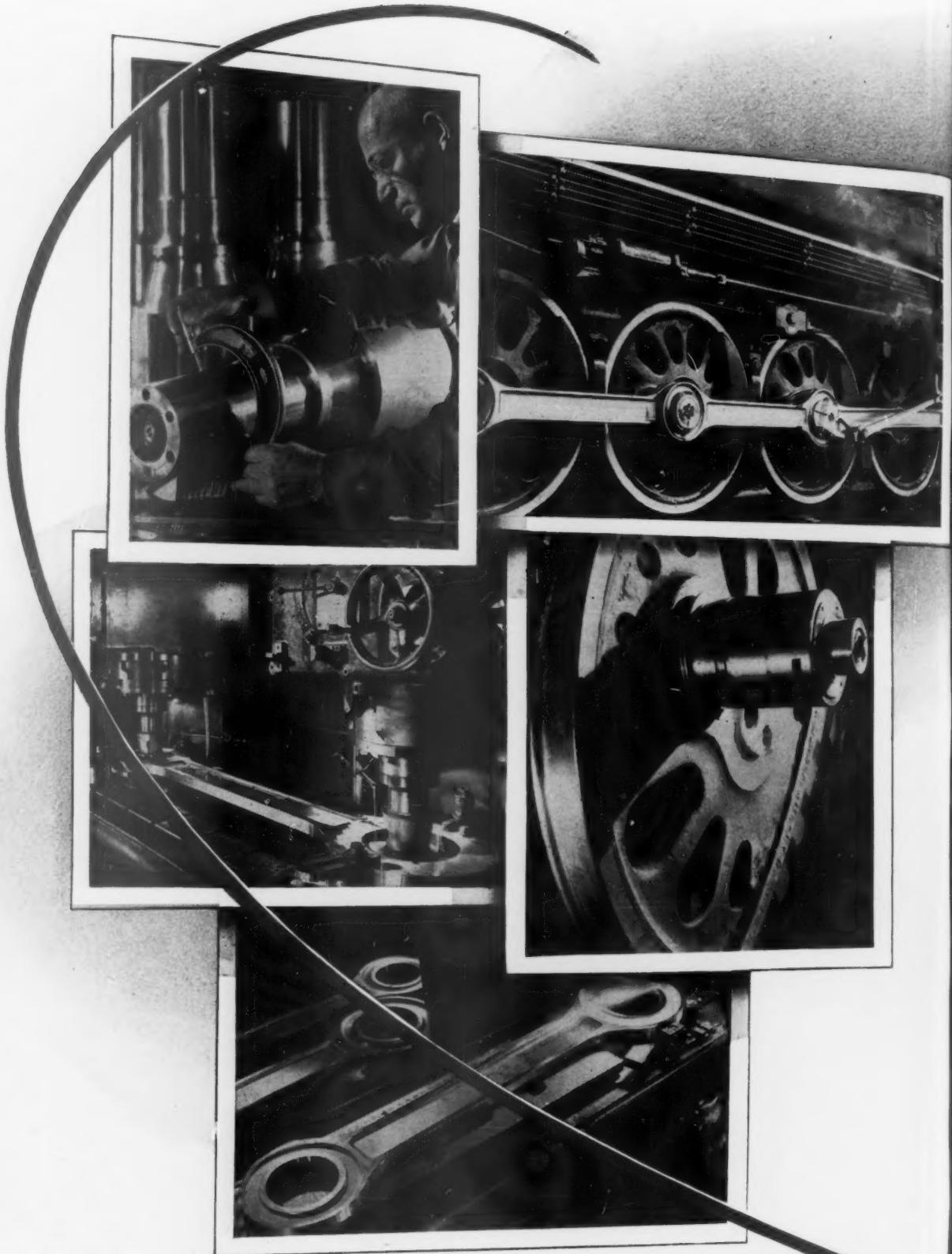
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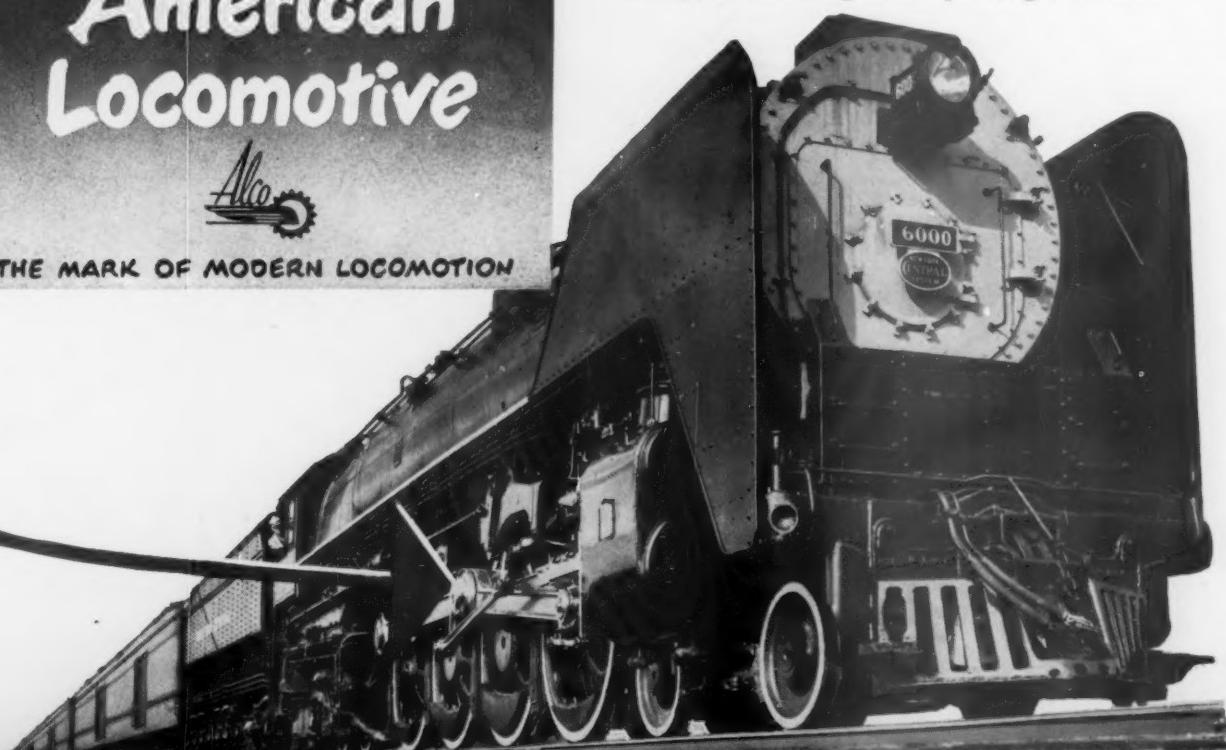
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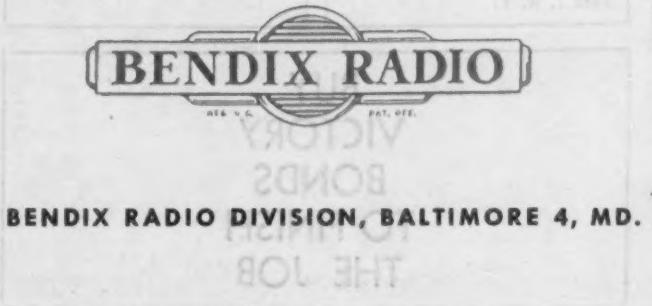
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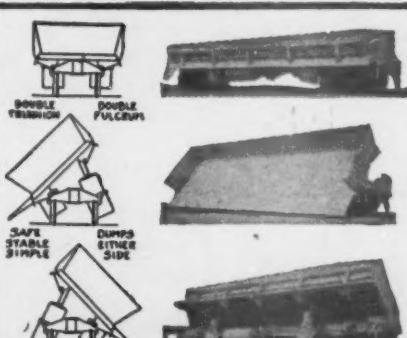
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